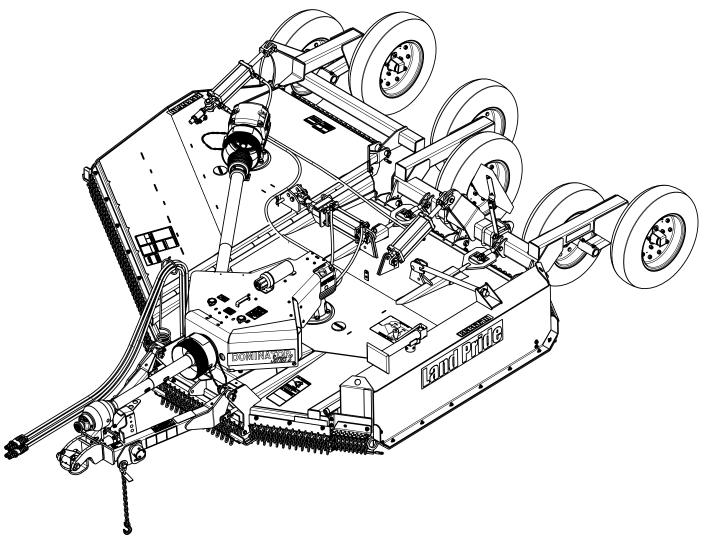
Rotary Cutters

RCB6610 & RCBM6610 Series 2 S/N 944730+



30219

330-584M Operator's Manual





Read the Operator's Manual entirely. When you see this symbol, the subsequent instructions and warnings are serious - follow without exception. Your life and the lives of others depend on it!

Cover photo may show optional equipment not supplied with standard unit.

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Printed in the United States of America.



These are common practices that may or may not be applicable to the products described in this manual.

Safety at All Times

Thoroughly read and understand the instructions given in this manual before operation. Refer to the "Safety Label" section, read all instructions noted on them.

Do not allow anyone to operate this equipment who has not fully read and comprehended this manual and who has not been properly trained in the safe operation of the equipment.

- ▲ The operator must not use drugs or alcohol as they can change the alertness or coordination of that person while operating equipment. The operator should, if taking overthe-counter drugs, seek medical advice on whether he/she can safely operate the equipment.
- ▲ Operator should be familiar with all functions of the unit.
- ▲ Operate controls from the driver's seat only. Never operate controls from the ground.
- Make sure all guards and shields are in place and secured before operating implement.
- ▲ Keep all bystanders away from equipment and work area.
- Do not leave tractor or implement unattended with engine running.
- Dismounting from a moving tractor can cause serious injury or death.
- ▲ Do not allow anyone to stand between tractor and implement while backing up to implement.
- ▲ Keep hands, feet, and clothing away from power-driven parts.
- ▲ Watch out for fences, trees, rocks, wires, etc., while operating and transporting implement.
- ▲ Turning tractor too tight may cause hitched machinery to ride up on wheels. This could result in injury or equipment damage.



Look For The Safety Alert Symbol

The SAFETY ALERT SYMBOL indicates there is a potential hazard to personal safety involved and extra safety precaution must be taken. When you see this symbol, be alert and carefully read the message that follows it. In addition to design and configuration of equipment, hazard control, and accident prevention are dependent upon the awareness, concern, prudence, and proper training of personnel involved in the operation, transport, maintenance, and storage of equipment.

Be Aware of Signal Words

A Signal word designates a degree or level of hazard seriousness. The signal words are:

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations, typically for machine components that, for functional purposes, cannot be guarded.

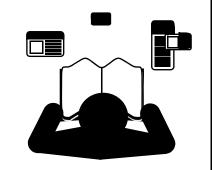
Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

A CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

For Your Protection

▲ Thoroughly read and understand the "Safety Label" section, read all instructions noted on them.



Tractor Shutdown & Storage

- ▲ If engaged, disengage PTO.
- ▲ Lower attached implement to ground, put tractor in park or set park brake, turn off engine, and remove switch key to prevent unauthorized starting.
- ▲ Wait for all components to come to a complete stop before leaving the operator's seat.
- ▲ Detach and store implement in an area where children normally do not play. Secure implement using blocks and supports.





Parts Manual QR Locator

The QR (Quick Reference) code on the cover and to the left will take you to the Parts Manual for this equipment. Download the appropriate App on your smart phone, open the App, point your phone on the QR code and take a picture.



Dealer QR Locator

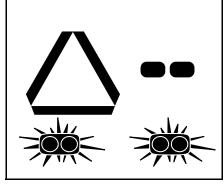
The QR code on the left will link you to available dealers for Land Pride products. Refer to Parts Manual QR Locator on this page for detailed instructions.



These are common practices that may or may not be applicable to the products described in this manual.

Use Safety Lights and Devices

- ▲ Slow moving tractors, self-propelled equipment, and towed implements can create a hazard when driven on public roads. They are difficult to see, especially at night.
- ▲ Flashing warning lights and turn signals are recommended whenever driving on public roads.



Transport Machinery Safely

- ▲ Comply with state and local laws.
- Use towing vehicle and trailer of adequate size and capacity.
- Secure equipment towed on a trailer with tie downs and chains.
- ▲ Sudden braking can cause a trailer to swerve and upset. Reduce speed if trailer is not equipped with brakes.
- ▲ Avoid contact with any over head utility lines or electrically charged conductors.
- Engage parking brake when stopped on an incline.

- ▲ Maximum transport speed for an attached implement is 20 mph. DO NOT EXCEED. Never travel at a speed which does not allow adequate control of steering and stopping. Some rough terrains require a slower speed.
- ▲ As a guideline, use the following maximum speed weight ratios for an attached implement:

20 mph when weight of attached implement is less than or equal to the weight of machine towing the implement.

10 mph when weight of attached implement exceeds weight of machine towing implement but not more than double the weight.

▲ IMPORTANT: Do not tow a load that is more than double the weight of the machine towing the load.



Use A Safety Chain

- ▲ A safety chain will help control drawn machinery should it separate from the tractor drawbar.
- ▲ Use a chain with the strength rating equal to or greater than the gross weight of the towed machinery.
- ▲ Attach the chain to the tractor drawbar support or other specified anchor location. Allow only enough slack in the chain to permit turning.
- ▲ Do not use safety chain for towing.



Practice Safe Maintenance

- ▲ Understand procedure before doing work. Use proper tools and equipment, refer to Operator's Manual for additional information.
- \blacktriangle Work in a clean dry area.
- ▲ Lower attached implement to the ground, put tractor in park, turn off engine, and remove key before performing maintenance.
- Allow implement to cool before working on it.
- ▲ Disconnect battery ground cable (-) before servicing or adjusting electrical systems or before welding on implement.
- ▲ Do not grease or oil implement while it is in operation.
- ▲ Inspect all parts. Make certain parts are in good condition & installed properly.
- Remove buildup of grease, oil, or debris.
- ▲ Remove all tools and unused parts from implement before operation.

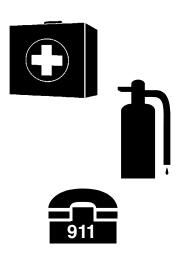




These are common practices that may or may not be applicable to the products described in this manual.

Prepare for Emergencies

- \blacktriangle Be prepared if a fire starts.
- ▲ Keep a first aid kit and fire extinguisher handy.
- ▲ Keep emergency numbers for doctor, ambulance, hospital, and fire department near phone.



Wear

Protective Equipment

- ▲ Wear protective clothing and equipment appropriate for the job. Clothing should be snug fitting without fringes and pull strings to avoid entanglement with moving parts.
- ▲ Prolonged exposure to loud noise can cause hearing impairment or hearing loss. Wear suitable hearing protection such as earmuffs or earplugs.
- Operating equipment safely requires the operator's full attention. Avoid wearing radio headphones while operating machinery.



Avoid High Pressure Fluids Hazard

- ▲ Escaping fluid under pressure can penetrate the skin causing serious injury.
- ▲ Avoid the hazard by relieving pressure before disconnecting hydraulic lines or performing work on the system.
- ▲ Make sure all hydraulic fluid connections are tight and all hydraulic hoses and lines are in good condition before applying pressure to the system.
- ▲ Use a piece of paper or cardboard, NOT BODY PARTS, to check for suspected leaks.
- ▲ Wear protective gloves and safety glasses or goggles when working with hydraulic systems.
- ▲ DO NOT DELAY. If an accident occurs, see a doctor familiar with this type of injury immediately. Any fluid injected into the skin or eyes must be treated within a few hours or

gangrene may result.



Tire Safety

- ▲ Tire changing can be dangerous and should be preformed by trained personnel using the correct tools and equipment.
- ▲ When inflating tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side and NOT in front of or over the tire assembly. Use a safety cage if available.
- ▲ When removing and installing wheels, use wheel handling equipment adequate for the weight involved.

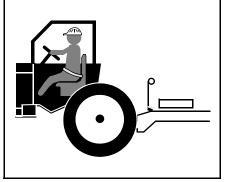


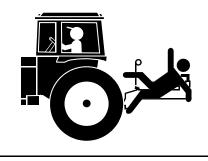
Use Seat Belt and ROPS

- ▲ Operate only tractors equipped with Roll-Over Protective Structure (ROPS) and seat belt.
- ▲ Fasten seat belt snugly and securely to help protect against serious injury or death from falling and tractor overturn.
- ▲ Wearing protective equipment such as safety shoes, safety glasses, hard hat, and ear plugs is highly recommended.

Keep Riders Off Machinery

- ▲ Never carry riders or use machinery as a person lift.
- ▲ Riders obstruct operator's view.
- Riders could be struck by foreign objects or thrown from the machine.
- Never allow children to operate equipment.



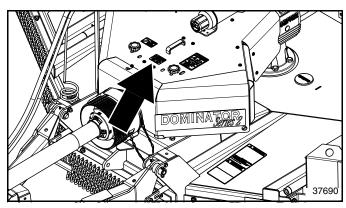


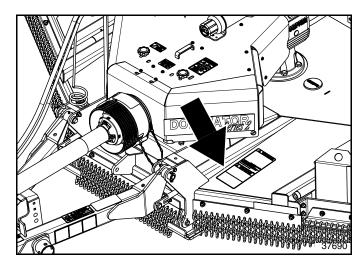


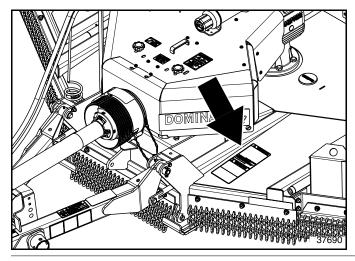
Safety Labels

Your Rotary Cutter comes equipped with all safety labels in place. They were designed to help you safely operate your implement. Read and follow their directions.

- 1. Keep all safety labels clean and legible.
- 2. Refer to this section for proper label placement. Replace all damaged or missing labels. Order new labels from your nearest Land Pride dealer. To find your nearest dealer, visit our dealer locator at www.landpride.com.
- 3. Some new equipment installed during repair requires safety labels to be affixed to the replaced component as







specified by Land Pride. When ordering new components make sure the correct safety labels are included in the request.

- 4. Refer to this section for proper label placement. To install new labels:
 - a. Clean surface area where label is to be placed.
 - b. Spray soapy water onto the cleaned area.
 - c. Peel backing from label and press label firmly onto the surface.
 - d. Squeeze out air bubbles with edge of a credit card or with a similar type of straight edge.





818-130C

Caution! Use 540 RPM PTO only (RC Series cutters)

818-240C

Caution! Use 1000 RPM PTO only (RCM Series cutters)



818-276C

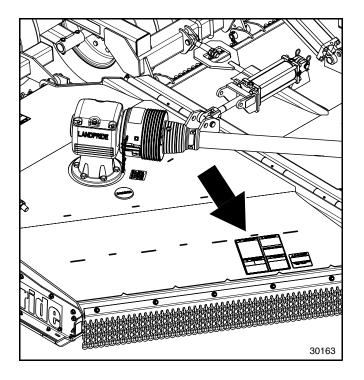
Warning! Rotating Blade Hazard 1 - Place: Left side of center deck

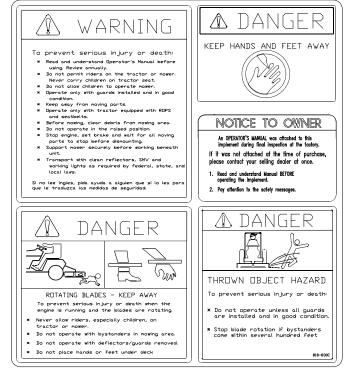


818-840C

Danger: Rollover Hazard 1 - Place: Left side of center deck

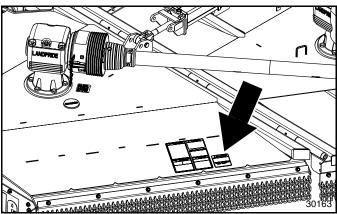


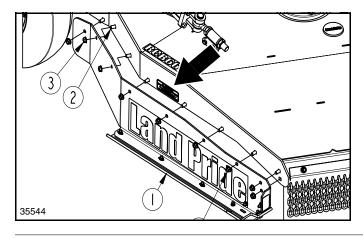




818-830C

Safety Combo 1 - Place: Front of right wing





DANGER Ŷ RAISED WING HAZARD KEEP AWAY prevent serious injury or death: sport without transport locks securely To pr Do not walk or work underneath raised wing unless it is securely locked.

818-561C

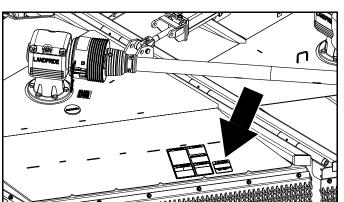
Danger! Raised Wing Hazard 1 - Place: Front of right wing



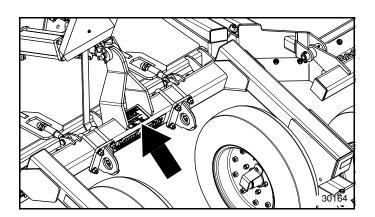
848-088C

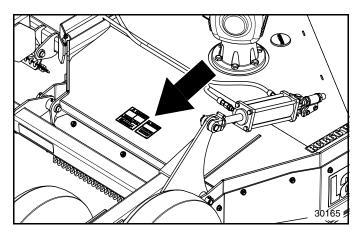
Danger! Guard Missing

1 - Place: Behind replaceable wing side skirt











818-045C

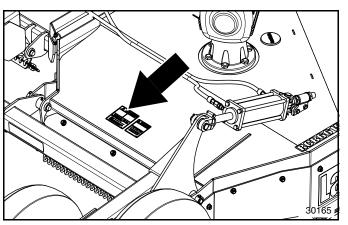
Warning! Pinch Point

1 - Place: Top of rear center axle



818-556C

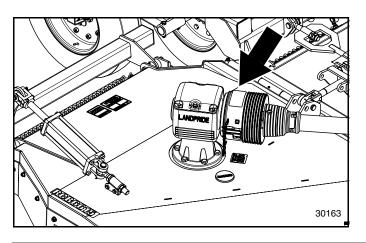
Danger! Thrown Object Hazard 1 - Place: Rear of the right wing





818-564C

Danger! Rotating Blade 1 - Place: Rear of the right wing

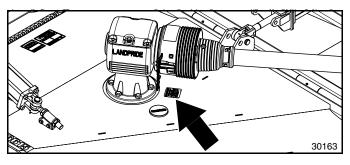


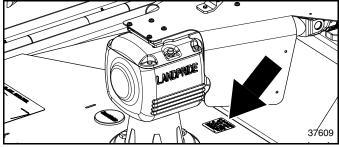


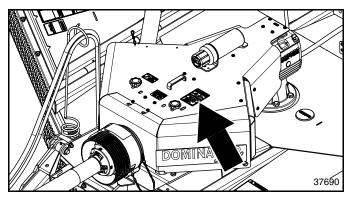
818-142C

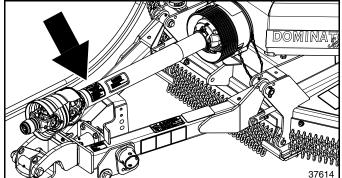
Danger! Rotating Driveline - Keep Away 2 - Places: Top of wing gearbox shield and splitter gearbox input shaft shield

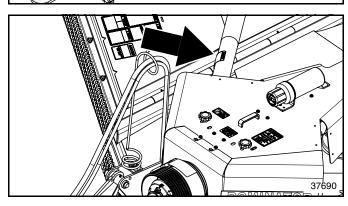














818-543C

Danger! Guard Missing - DO NOT Operate 2 - Places: Under spindle gearbox shields

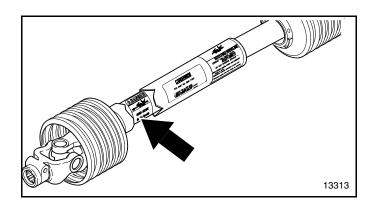


818-552C

Danger! Rotating Driveline - Keep Away

- 1 Place: Top of splitter shield
- 2 Places: Main driveline and wing driveline

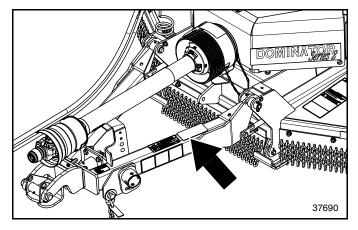






818-540C

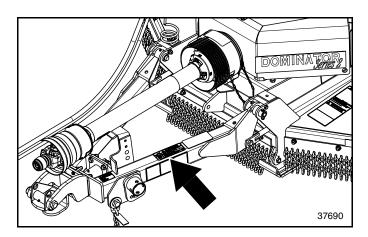
Danger! Shield Missing - DO NOT Operate 2 - Places: On wing drive line and main driveline

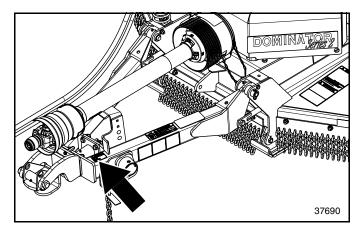




818-714C

Danger! Crushing Hazard 1 - Place: Located on hitch frame







838-094C

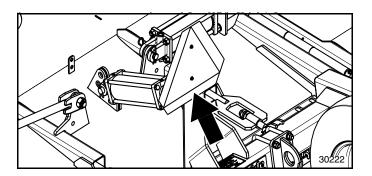
Warning! High Pressure 1 - Place: Located on hitch frame

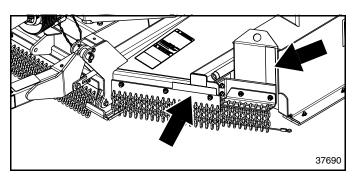
A WARNING
DO NOT EXCEED 20 MPH TRANSPORT SPEED. TO PREVENT MACHINE DAMAGE LIMIT SPEED
WHILE: • TRANSPORTING • TRANSPORTING
TURNING IN WINDY CONDITIONS IN ROUGH TERRAIN
838-589C

838-588C

Warning! Folding Cutter Speed Warning 1 - Place: Located on hitch frame









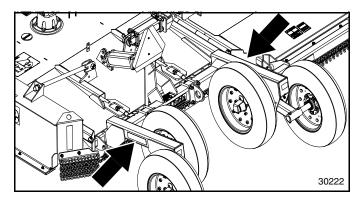
818-055C

Caution! Slow moving vehicle sign (SMV)

838-615C

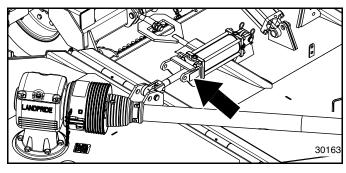
2" x 9" Amber Reflector

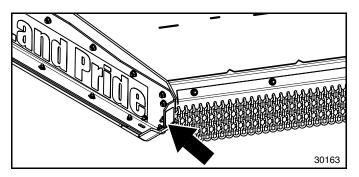
2 - Places: Font left side of center deck and front left side of weight box

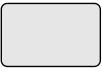


838-615C

- 2" x 9" Amber Reflector
- 2 Places: Left & right side of center deck rear axle.







818-229C

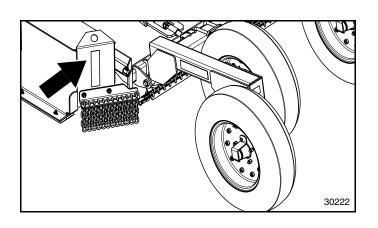
1 3/4" x 2 3/4" Amber Reflector

1 - Place: Front side of right transport lock

l		

818-229C 1 3/4" x 2 3/4" Amber Reflector 1 - Place: Front right corner of right-hand wing

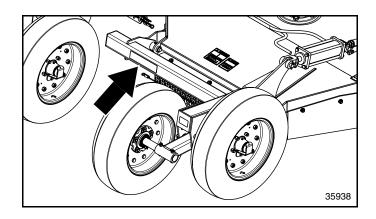




838-614C

2" x 9" Red Reflector

1 - place: Back face of weight box

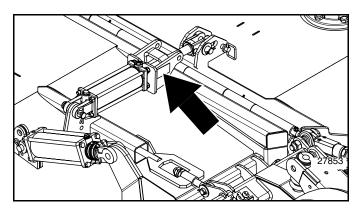


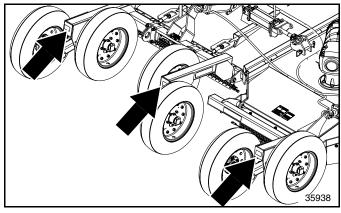


838-614C

2" x 9" Red Reflector

1 - place: Back face of wing axle





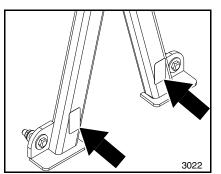


818-230C

11/16" x 2 13/16" Red Reflector

8 possible places:

- place: Back face of transport lock
 places: Back face of wheel arms
- 2 places: Back face of optional mechanical winch
- 2 places: Back face of optional tool box



Mechanical winch & Tool Box Options



Land Pride welcomes you to the growing family of new product owners. This Rotary Cutter has been designed with care and built by skilled workers using quality materials. Proper assembly, maintenance and safe operating practices will help you get years of satisfactory use from this machine.

Application

The RCB6610 & RCBM6610 Series 2 Rotary Cutters are designed and built by Land Pride to provide excellent cutting performance on gently sloping or slightly contoured right-of-ways, roadsides, pastures, set-aside-acres, or for residue in row crop fields. The 10' cutting width, 2" to 14" cutting height and ability to cut weeds and brush up to 4 1/2" in diameter make them well suited for these applications.

All listed models offer a pull-type, narrow A-frame hitch, and Cat 5 conventional or Cat. 6 constant velocity main driveline for attachment to 50-250 hp tractors. The RCB6610 attaches to 540 RPM tractors and RCBM6610 attaches to 1000 RPM tractors.

They are also offered with various optional hitch types, axle configurations, tires, safety guards, and deck rings making them an excellent choice for agricultural, state, and municipal mowing applications.

See "**Specifications & Capacities**" on page 56 and "**Features & Benefits**" on page 58 for additional information and performance enhancing options.

Using This Manual

- This Operator's Manual is designed to help familiarize you with safety, assembly, operation, adjustments, troubleshooting, and maintenance. Read this manual and follow the recommendations to help ensure safe and efficient operation.
- The information contained within this manual was current at the time of printing. Some parts may change slightly to assure you of the best performance.
- To order a new Operator's or Parts Manual, contact your authorized dealer. Manuals can also be downloaded, free-of-charge, from our website at www.landpride.com.
- Store this manual in the dry storage tube located on top of the splitter guard.

Terminology

"Right" or "Left" as used in this manual is determined by facing forward in the direction the machine will operate while in use unless otherwise stated.

Definitions

IMPORTANT: A special point of information related to the following topic. Land Pride's intention is this information must be read & noted before continuing.

NOTE: A special point of information that the operator should be aware of before continuing.

Owner Assistance

The Online Warranty Registration should be completed by the dealer at the time of purchase. This information is necessary to provide you with quality customer service.

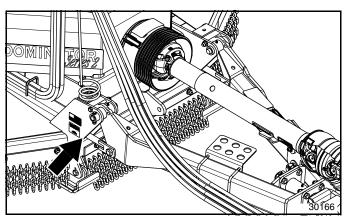
The parts on your Rotary Cutter have been specially designed by Land Pride and should only be replaced with genuine Land Pride parts. Contact a Land Pride dealer if customer service or repair parts are required. Your Land Pride dealer has trained personnel, repair parts, and equipment needed to service the implement.

Serial Number

Model No. _____Serial No. ___

For quick reference and prompt service, record model number and serial number in the spaces provided above and again on warranty page 63. Always provide model

and again on warranty page 63. Always provide model number and serial number when ordering parts and in all correspondences with your Land Pride dealer. Refer to Figure 1 for location of your serial number plate.



Serial Number Plate Location Figure 1

Further Assistance

Your dealer wants you to be satisfied with your new cutter. If for any reason you do not understand any part of this manual or are not satisfied with the service received, the following actions are suggested:

- 1. Discuss the matter with your dealership service manager making sure that person is aware of any problems you may have and has had the opportunity to assist you.
- 2. If you are still not satisfied, seek out the owner or general manager of the dealership, explain the problem, and request assistance.
- 3. For further assistance write to:

Land Pride Service Department 1525 East North Street P.O. Box 5060

Salina, Ks. 67402-5060

E-mail address lpservicedept@landpride.com



Tractor Requirements

Horsepower



Do not use too small a tractor. Tractors that are too small can be pushed around and/or flipped over by the weight of the cutter. Tractors that are too large can damage the cutter.

Tractor horsepower should be within the range noted below. Tractors outside the range must not be used.

Horsepower Rating50-250 HP

Drawbar Set-up

Refer to Figure 1-1:

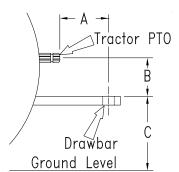
Maintain proper distance, dimension A, between center of drawbar hitch pin hole and end of tractor PTO shaft.

Hitch Type Draw Bar 540 RPM & 1 3/8". 1000 RPM Rear PTO Speed:

Α		 14"- 16"
В		 8" - 10"
С		
	RPM Rear PTC	
Α		
В		 10" - 12"
С		

IMPORTANT: PTO damage may occur if distances "A" and "B" are not properly maintained.

IMPORTANT: A PTO adaptor should not be used. Using a PTO adaptor can damage the PTO.



22273

PTO to Drawbar Distance Figure 1-1

PTO Speed

Rear PTO Speed:	
Model RCB6610	
Model RCBM6610	1000 RPM

Hydraulic Outlets

Two duplex outlets are required. One to raise and lower the cutter, and one to fold the wing. Float position is highly recommended for the wing. If your tractor is not equipped with two duplex outlets, an optional control valve kit is available from your local Land Pride dealer. See "**Selector Control Valve Kit**" on page 39 for information about the hydraulic kit.

Before You Start

Read and understand the operator's manual for your cutter. An understanding of how it works will aid in the assembly and setup of your cutter.

It is best to go through the **Assembly Checklist** before assembling the cutter. Speed up your assembly task and make the job safer by having all needed parts and equipment readily at hand.

Torque Requirements

See **"Torque Values Chart"** page 62 to determine correct torque values when tightening hardware. See **"Additional Torque Values"** at bottom of chart for exceptions to common torque values.

Assembly Checklist

	Check	Reference	
Have a fork lift or loader with properly sized chains and safety stands capable of lifting and supporting the equipment on hand.			
	Have a minimum of two people available during assembly.		
	Make sure all major components and loose parts are shipped with the machine.	Operator's Manual	
	Double check to make sure all parts, fasteners, and pins are installed in the correct location. Refer to the Parts Manual if unsure. By double checking, you will lessen the chance of using a bolt incorrectly that may be needed later. NOTE: All assembled hardware from the factory has been installed in the correct location. Remember location of a part or fastener if removed during assembly. Keep parts separated.	Operator's Manual 330-584M Parts Manual 334-071P	
	Make sure working parts move freely, bolts are tight & cotter pins are spread.	Operator's Manual	
	Make sure all grease fittings are in place and lubricated.	Page 49	
	Make sure all safety labels are correctly located and legible. Replace if damaged.	Page 4	
	Make sure all red and amber reflectors are correctly located and visible when machine is in transport position.	Page 10	
	Make sure all tires are inflated to the specified psi air pressure and all wheel bolts and axle nuts are tightened to the specified torque.	Page 62	

Hitch Types

The cutter is factory supplied with the standard clevis hitch. Other optional hitches are available. They include Land Pride Performance hitch, bar-tite hitch, ball hitch, and pintle hitch. See your nearest Land Pride dealer should you want to change your hitch set-up.

Standard Clevis Hitch

Refer to Figure 1-2:

A clevis leveling rod attached to the underside of the clevis keeps the clevis parallel with tractor drawbar at all cutting heights. Cutter rotation about the tractor drawbar is limited to slots located in the clevis' upper and lower plates and drawbar hole size.

Land Pride Performance Hitch (Optional)

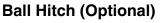
Refer to Figure 1-3:

The LP Performance Hitch is a drawbar friendly, self-leveling hitch that pivots up and down and side-toside. It is held upright with customer-supplied hitch pin to allow single-person hook-up.

Bar-Tite Hitch (Optional)

Refer to Figure 1-4:

The bar-tite hitch functions similar to LP Performance hitch except it clamps directly to the drawbar. The bar-tite hitch is sandwiched between hardened steel plates to eliminate drawbar wear. It has a bushing in the tongue to extend hitch life. Bushing and hitch swivel are greasable.



Refer to Figure 1-5:

Cutter rotation about the tractor drawbar is limited to swivel movement over the 2 5/16" tractor mounted ball.

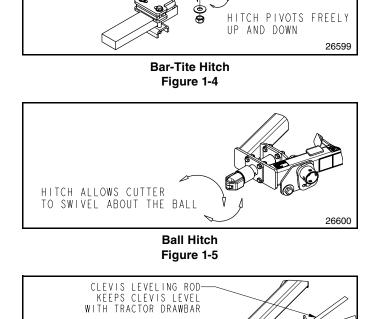
Pintle Hitch (Optional)

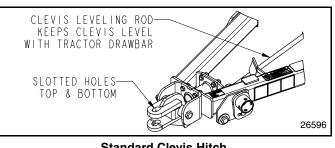
Refer to Figure 1-6:

A leveling rod attached to the underside of the pintle hitch keeps the pintle parallel with the tractor drawbar at all cutting heights. Cutter rotation about the tractor drawbar is limited to movement about the pintle connection. The pintle hitch is ideal for a drawbar hammer strap.

Pintle Hitch Figure 1-6 26602

HITCH ALLOWS CUTTER TO SWIVEL ABOUT THE PINTEL





Standard Clevis Hitch Figure 1-2

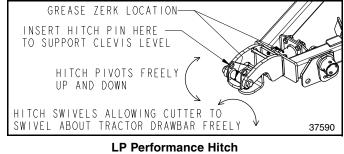


Figure 1-3

3 GREASE ZERKS

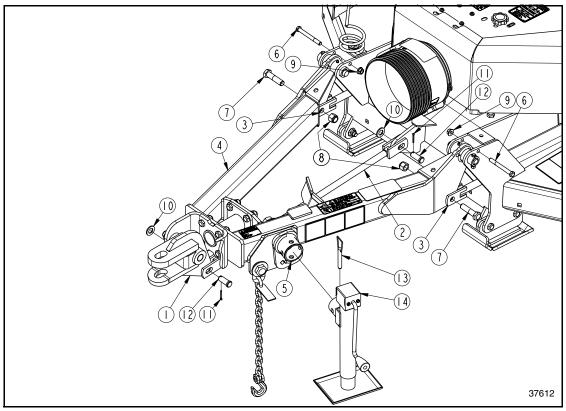
HITCH SWIVELS ALLOWING

CUTTER TO PIVOT ABOUT

TRACTOR DRAWBAR FREELY







Hitch & Jack Assembly Figure 1-7

Hitch Assembly

Refer to Figure 1-7:

- 1. Remove and discard 1/2" nuts (#9) and bolts (#6).
- 2. Rotate hitch (#4) down into pulling position as shown in Figure 1-7.
- 3. Instructions "a" & "b" below are for cutters equipped with standard clevis or pintle hitch. Skip to step 4 if assembling LP Performance, bar-tite, or ball hitch.
 - Attach clevis level rod (#2) to center deck lug and clevis hitch (#1) with clevis pins (#12), flat washers (#10), and cotter pins (#11).
 - b. Secure cotter pins (#11) by bending one or more legs of each pin.

IMPORTANT: Insert bolts (#7) from outside the hitch frame. Inserting bolts from inside the hitch will result in them interfering with tractor tires.

- 4. Attach hitch frame (#4) to leveling rods (#3) by inserting 3/4" x 3" lg. bolts (#7) through leveling rod's outside clevis plate, hitch frame (#4), and out through leveling rod's inside clevis plate. Secure bolts with nylock nut (#8). Draw nuts up snug, do not tighten.
- 5. Leveling rod adjustment will be made after the cutter is attached to the tractor.

Park Jack Assembly

Refer to Figure 1-7:

- 1. Attach park jack (#14) to jack mount (#5) and secure with detent pin (#13).
- 2. If park jack is not vertical, adjust jack angle according to "**Park Jack Angle Alignment**" on page 26.
- 3. Adjust jack up or down until clevis hitch (#1) is at drawbar height.

Tractor Shutdown Procedure

The following is proper tractor shutdown procedures. Always follows these procedures before dismounting tractor.

- 1. If engaged, disengage PTO.
- 2. Lower attached implement to ground, put tractor in park or set park brake, turn off engine, and remove switch key to prevent unauthorized starting.
- 3. Wait for all cutter components to come to a complete stop before leaving the operator's seat.



Standard Clevis Hitch Hook-up

A Crushing Hazard exists when hooking-up equipment to a tractor. Do not allow anyone to stand between tractor and implement while backing-up to implement. Do not operate hydraulic 3-Point lift controls while someone is directly behind the tractor or near the implement.

IMPORTANT: Ball detent pin (#8) must be fully inserted in park jack (#3) before working on or around a cutter not hooked to a tractor drawbar.

Refer to Figure 1-8:

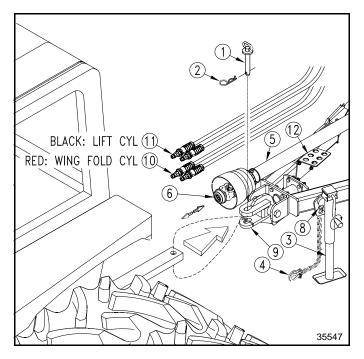
- Make certain park jack (#3) is properly attached to cutter hitch and secured with detent pin (#8). If park jack is not vertical, refer to "Park Jack Angle Alignment" on page 26.
- 2. Start tractor and raise 3-point arms fully up.
- 3. Carefully back tractor within close proximity of clevis (#9).
- 4. Shut tractor down properly before dismounting. Refer to "Tractor Shutdown Procedure" on page 14.
- 5. Verify tractor drawbar is adjusted correctly. Refer to "Drawbar Set-up" dimensions on page 12.
- 6. Raise or lower park jack (#3) to align clevis (#9) with tractor drawbar. Drawbar should fit between lower and upper plates of clevis.
- 7. Restart tractor and continue to back tractor up to cutter hitch until hitch holes in tractor drawbar and clevis hitch (#9) are properly aligned.
- 8. Shut tractor down properly before dismounting.

NOTE: Hitch pin (#1) and hairpin cotter (#2) are supplied by customer.

- 9. Attach cutter to tractor drawbar with customer supplied hitch pin (#1) and hairpin cotter (#2).
- 10. Lower park jack (#3) until hitch weight is supported by drawbar.

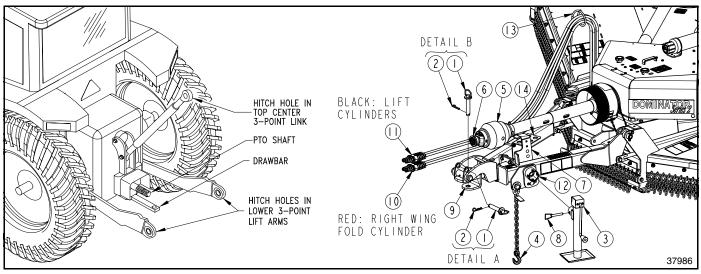
IMPORTANT: Protect park jack by attaching it to the weight box before moving the cutter. Make sure jack is stored with its base level or lower than the head to prevent water and freeze damage.

- 11. Remove park jack (#3) from the hitch and attach it to the weight box with detent pin (#8). Make sure jack base is level or lower than the jack crank head. See cover picture for correct positioning.
- 12. Attach hitch safety chain (#4) to the tractor. Adjust chain length to remove all slack except what is necessary to permit turning. Lock chain hook securely to the safety chain.
- 13. Continue with "Hydraulic Plumbing" on page 18 and "Driveline Installation" on page 20.



Tractor Hook-up to Standard Clevis Hitch Figure 1-8







LP Performance Hitch Hook-up



A Crushing Hazard exists when hooking-up equipment to a tractor. Do not allow anyone to stand between tractor and implement while backing-up to implement. Do not operate hydraulic 3-Point lift controls while someone is directly behind the tractor or near the implement.

Refer to Figure 1-9:

IMPORTANT: Ball detent pin (#8) must be fully inserted in park jack (#3) before working on or around a cutter not hooked to a tractor drawbar.

NOTE: Hitch pin (#1) and hairpin cotter (#2) are customer-supplied.

- Make certain park jack (#3) is properly attached to jack mount (#15) and secured with attachment pin (#8). If park jack is not vertical, refer to "Park Jack Angle Alignment" on page 26.
- If clevis (#9) is not already supported horizontal, rotate clevis horizontal and insert customer-supplied hitch pin (#1) through horizontal holes in clevis (#9) as shown in detail A. Secure with hairpin cotter (#2).
- 3. Store center 3-point link in its storage hook.
- 4. Start tractor and raise 3-point arms fully up.
- 5. Carefully back tractor within close proximity of clevis (#9).
- 6. Shut tractor down properly before dismounting. Refer to "**Tractor Shutdown Procedure**" on page 14.

- 7. Verify tractor drawbar is adjusted correctly. Refer to "Drawbar Set-up" dimensions on page 12.
- 8. Raise or lower park jack (#3) to align clevis (#9) with tractor drawbar. Drawbar should fit between lower and upper plates of clevis.
- 9. Restart tractor and continue to back tractor up to cutter hitch until hitch holes in tractor drawbar and hitch clevis (#9) are aligned.
- 10. Shut tractor down properly before dismounting.
- 11. Remove hairpin cotter (#2) and hitch pin (#1) from clevis (#9) as shown in detail A.
- 12. Attach cutter to tractor drawbar with hitch pin (#1) and hairpin cotter (#2) as shown in detail B.
- 13. Lower park jack (#3) until hitch weight is supported by tractor drawbar.

IMPORTANT: Protect park jack by attaching it to the weight box before moving the cutter. Make sure jack is stored with its base level or lower than the head to prevent water and freeze damage.

- 14. Remove park jack (#3) from jack mount (#12) and attach it to the weight box with detent pin (#8). Make sure jack base is level or lower than the jack crank head. See cover picture for correct positioning.
- 15. Attach hitch safety chain (#4) to the tractor. Adjust chain length to remove all slack except what is necessary to permit turning. Lock chain hook securely to the safety chain.
- 16. Continue with "Hydraulic Plumbing" on page 18 and "Driveline Installation" on page 20.



Bar-Tite Hitch Hook-up

Refer to Figure 1-10:

Attach Bar-Tite Hitch to Tractor Drawbar

- Insert 1" x 5 1/2" hex bolt (#1) through hitch top plate (#2), hitch bushing (#3), hitch wear plate (#4), tractor drawbar (#5), and washer (#6) as shown. Secure with 1" lock nut (#7). Tighten 1" lock nut snugly to remove all play and then back nut one-quarter turn. **Do Not** torque 1" lock nut.
- Insert two 3/4" x 6" GR5 hex bolts (#8) through, 3/4" flat washers (#9), hitch top plate (#2), hitch wear plate (#4), and formed hitch support (#10) as shown. Secure with 3/4" locknuts (#11).
- 3. Tighten 3/4" locknuts to correct torque.
- 4. Remove 1" x 6 1/2" GR5 hex bolt (#12) and 1" lock nut (#13) from hitch bushing (#3). Keep bolt and lock nut for reuse.

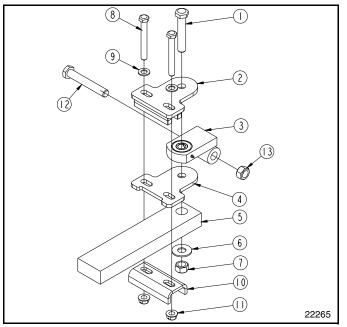
Attach Tractor to Rotary Cutter

A Crushing Hazard exists when hooking-up equipment to a tractor. Do not allow anyone to stand between tractor and implement while backing-up to implement. Do not operate hydraulic 3-Point lift controls while someone is directly behind the tractor or near the implement.

Refer to Figure 1-11:

IMPORTANT: Ball detent pin (#8) must be fully inserted in park jack (#3) before working on or around a cutter not hooked to a tractor drawbar.

- Make certain park jack (#3) is properly attached to cutter hitch and secured with detent pin (#8). If park jack is not vertical, refer to "Park Jack Angle Alignment" on page 26.
- 2. Store center 3-point link in the tractor storage hook.
- 3. Start tractor and raise 3-point arms fully up.
- 4. Carefully back tractor within close proximity of clevis (#9).
- 5. Shut tractor down properly before dismounting. Refer to "**Tractor Shutdown Procedure**" on page 14.
- 6. Verify tractor drawbar is adjusted correctly. Refer to "Drawbar Set-up" dimensions on page 12.
- 7. Raise or lower park jack (#3) to align swivel clevis (#9) with bolt hole in hitch bushing (#7).
- 8. Restart tractor and back tractor up to swivel clevis (#9) until hole in hitch bushing (#10) aligns with holes in swivel clevis (#9).
- 9. Shut tractor down properly before dismounting.
- Insert 1" x 6 1/2" GR5 hex bolt (#1) through swivel clevis (#9) and hitch bushing (#7). Secure hex bolt with lock nut (#2). Tighten lock nut snugly to remove all play. **Do Not** torque 1" lock nut.

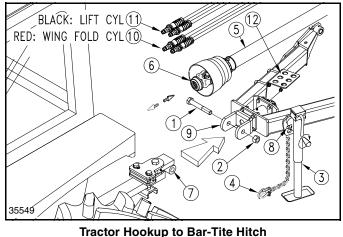


Bar-Tite Hitch Assembly to Tractor Tongue Figure 1-10

11. Lower park jack (#3) until hitch weight is supported by the drawbar.

IMPORTANT: Protect park jack by attaching it to the weight box before moving the cutter. Make sure jack is stored with its base level or lower than the head to prevent water and freeze damage.

- 12. Remove park jack (#3) from the hitch and attach it to the weight box with detent pin (#8). Make sure jack base is level or lower than the jack crank head. See cover picture for correct positioning.
- 13. Attach hitch safety chain (#4) to the tractor. Adjust chain length to remove all slack except what is necessary to permit turning. Securely lock chain hook to the safety chain.
- 14. Continue with "Hydraulic Plumbing" on page 18 and "Driveline Installation" on page 20.



ractor Hookup to Bar-Tite Hite Figure 1-11



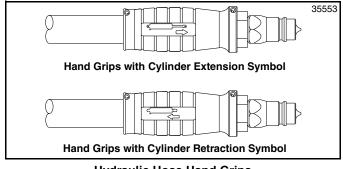
Hydraulic Plumbing



Hydraulic fluid under high pressure can penetrate skin. Wear protective gloves and safety glasses or goggles when working with hydraulic systems. Use a piece of cardboard or wood rather than hands when searching for hydraulic leaks. If hydraulic fluid is injected into the skin or eyes, it must be treated by a doctor familiar with this type of injury within a few hours or gangrene may result. DO NOT DELAY.

Refer to Figure 1-12:

Located on the hand grips are symbols indicating if the cylinder will extend or retract when hydraulic pressure is applied to that hose. Make sure hand grips are on the correct hoses. Use hand grip colors and symbols to aid in hook-up.



Hydraulic Hose Hand Grips Figure 1-12

Refer to Figure 1-14 on page 19:

Refer to Figure 1-14 to verify wing folding cylinder is plumbed correctly. Make sure couplings (#4) with red hand grips (#5 & #6) are attached to the right wing folding cylinder. It is best if the wing folding cylinder (#1) is connected to a duplex outlet with float option to allow the wing to float with the contour of the ground while cutting.

Refer to Figure 1-15 on page 19:

The cutting/transporting height is controlled by two rephasing lift cylinders (#1 & #2) which are plumbed together to operate in unison. The decks will not lift properly if rephasing cylinders are plumbed incorrectly. See Figure 1-15 to verify plumbing. Make sure couplings (#5) with black hand grips (#9 & #10) are attached to lift cylinders (#1 & #2).

Hydraulic Hook-up

Refer to Refer to Figure 1-9 on page 16:

- 1. Route right wing cylinder hoses (#10) with red hand grips through hose support loop (#13) and connect to a tractor duplex outlet with float option if available.
- 2. Route lift cylinder hoses (#11) with black hand grips through hose support loop (#13) and connect to a tractor duplex outlet.

Unfolding Wing Deck

Metal shipping bands are under tension. Always wear eye protection when cutting bands. Keep head, body, and body extremities away from areas a band will recoil into when cut.

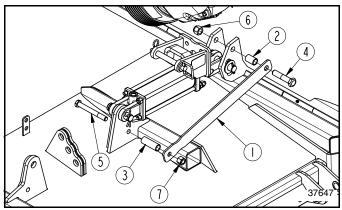
Keep everyone out of the area where the wing deck will unfold into. A wing that falls suddenly on a person will cause serious bodily injury or death.

The wing deck is shipped leaning in towards the center deck. A person will need to manually push the wing deck out pass vertical position before it will lower under its own weight. Before pushing on the wing deck:

• Make certain no one is in the area where the deck will lower down into as it is unfolded.

• Make certain your footing is secure and you are clear of any possible pinch points.

• Make certain you are standing on the center deck behind and away from hydraulic hoses, hydraulic cylinders, gearboxes, and drivelines so that you do not become entangled in them as they move while the decks are unfolding.



Remove Shipping Bar Figure 1-13

Refer to Figure 1-13:

- 1. Make sure cutter is parked on a level surface.
- 2. Place gear selector in park or set park brake, fully retract wing hydraulic cylinder, shut tractor off, and remove switch key before dismounting tractor.
- Remove hex nylock nuts (#6 & #7), bolts (#4 & #5), shipping strap (#1), and shipping tubes (#2 & #3). Discard removed hardware (#1 thru #7).
- 4. See "**DANGER**" above. Cut and remove rear metal shipping strap securing the wing deck wheel.
- 5. Set tractor control lever for the wing cylinder in float.

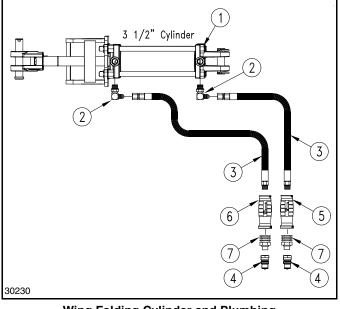


6. See "**WARNING**" on page 18. Once you are sure the area is clear and you are safely positioned, manually unfold the wing until it starts to fall on its own. The wing should fall slowly as the hydraulic line is orificed to control the fall.

Wing Folding Cylinder & Plumbing

Refer to Figure 1-14:

- 1. Hydraulic cylinder 3 1/2" x 8" x 1 1/4" rod
- 2. Orifice elbow, 1/16" x 9/16" MJIC x 3/4" MORB
- 3. 3/8" Hydraulic hose, 189" long x 9/16" FJIC x 3/4" MORB
- 4. Quick disconnect poppet type coupling, 3/4" MORB male
- 5. Red hand grip for cylinder extension
- 6. Red hand grip for cylinder retraction
- 7. Hand grip adapter, 3/4MORB x 3/4FORB

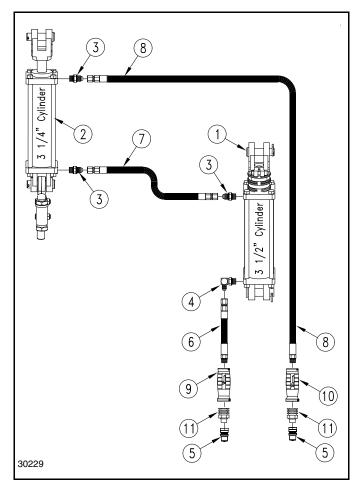


Wing Folding Cylinder and Plumbing Figure 1-14

Rephasing Cylinders & Plumbing

Refer to Figure 1-15:

- 1. Rephasing hydraulic cylinder 3 1/2" x 8" x 1 1/4" rod
- 2. Rephasing hydraulic cylinder 3 1/4" x 8" x 1 1/4" rod
- 3. Straight adapter 3/4 MORB x 3/4MJIC
- 4. Elbow, 3/4" MJIC x 3/4" MORB
- 5. Quick disconnect poppet type coupling, 3/4" MORB male
- 6. 3/8" Hydraulic hose, 168" long x 3/4" MORB x 3/4" FJIC
- 7. 3/8" Hydraulic hose, 84" long x 3/4" FJIC
- 8. 3/8" Hydraulic hose, 249" long x 3/4" FJIC x 3/4" MORB
- 9. Black hand grip for cylinder extension
- 10. Black hand grip for cylinder retraction
- 11. Hand grip adapter, 3/4MORB x 3/4FORB



Re-phasing Deck Lift Cylinders and Plumbing Figure 1-15



Driveline Installation



Do not engage tractor PTO while hooking-up and unhooking driveline or while someone is standing near the driveline. A person's body and/or clothing can become entangled in the driveline resulting in serious injury or death.



To avoid serious injury or death:

- Do not use PTO adapters. A PTO adapter will increase strain on the tractor's PTO shaft resulting in possible damage to shaft and driveline. It will also defeat the purpose of the tractor's master shield.
- Always disengage PTO, place tractor in park or set park brake, shut tractor engine off, remove switch key, and wait for blades to stop before dismounting from tractor.
- Make certain all driveline yokes are securely fastened at both ends. A loose yoke can work free allowing the driveline to rotate uncontrollably causing machine damage and bodily injury or death to anyone nearby.
- Do not operate cutter above its rated PTO speed or machine breakage may result.

IMPORTANT: Do not attempt to operate a 540 rpm driveline at 1,000 rpm or a 1,000 rpm driveline at 540 rpm. Many tractors provide both 540 and 1,000 rpm PTO modes. Check your tractor's manual to determine its capabilities.

IMPORTANT: The driveline must be lubricated before putting it into service. Refer to "**Lubrication Points**" on page 49.

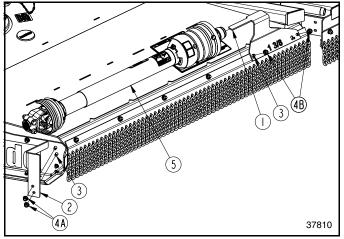
NOTE: Complete "Unfolding Wing Deck"

instructions on page 18 before removing driveline from its shipping location.

The main driveline may be either constant velocity type or conventional type. Pull-collar coupler and retaining bolts are used to connect the driveline to the tractor and implement gearbox, respectively.

Refer to Figure 1-16:

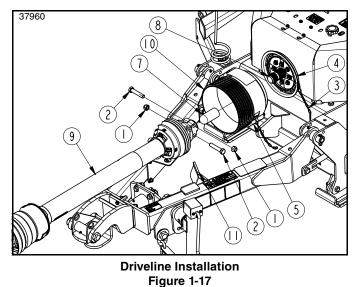
- 1. Remove hex whiz nuts (#4A) and shipping bracket (#2). Discard shipping bracket.
- Slide driveline (#5) off end of shipping bracket (#1). Set driveline aside for attaching to splitter box later.
- 3. Reattach hex whiz nuts (#4A) to carriage bolts (#3) and tighten them to the correct torque.
- 4. Remove hex whiz nuts (#4B) and shipping bracket (#1). Discard shipping bracket.
- Reattach hex whiz nuts (#4B) to carriage bolts (#3) and tighten them to the correct torque.



Remove Main Driveline From Cutter Figure 1-16

Refer to Figure 1-17:

- 6. Unsnap latches (#5) on both sides of gearbox shield (#10) and remove shield.
- 7. Remove and discard rubber shaft protector (#7) from splitter gearbox shaft (#8).
- 8. Remove locknuts (#1) and bolts (#2) from bolted coupler end of driveline (#9).
- Insert bolted coupler end of driveline (#9) through gearbox shield (#10) and attach to gearbox input shaft (#8) with removed bolts (#2) and locknuts (#1). Tighten locknuts to the correct torque.
- 10. Collapse driveline (#9) by pushing tractor end of driveline toward splitter gearbox (#8).
- Rotate driveline hanger (#11) up and support driveline (#9) on hanger. Final adjustments to hanger will be made later after tractor hook-up.
- 12. Return gearbox shield (#10) to mounting plate (#4) and secure with latches (#5).
- 13. Check safety chain (#3). Make sure it is latched to mounting plate (#4) and gearbox shield (#10).



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Driveline Hook-up to Tractor PTO

Refer to Figure 1-19:

- 1. If needed, collapse driveline (#5) by pushing tractor end of driveline against splitter gearbox.
- 2. Pull back on yoke locking collar (#6) and slide yoke over tractor PTO shaft.
- Release locking collar (#6) and continue to push outer yoke onto tractor PTO shaft until locking collar snaps in place.
- 4. Both yoke ends of driveline (#5) should be moved back and forth to ensure they are secured. Reattach yoke end if it is loose.

IMPORTANT: Always rotate driveline hanger down after hook-up to prevent driveline damage.

- 5. Rotate driveline hanger (#1) down.
- 6. If attached, remove park jack (#3) and store on weight box. See steps 13 & 14 on page 16.

Adjust Driveline Hanger

Refer to Figure 1-18:

- 1. Move tractor control lever to extend hydraulic lift cylinder (#1) until pressure against stroke control spacers (#4) is removed.
- 2. Shut tractor down properly before dismounting. Refer to "**Tractor Shutdown Procedure**" on page 14.
- 3. Remove all stroke control spacers (#4) from center hydraulic lift cylinder (#1) by spreading them apart at the break line.
- 4. Start tractor and lower cutter until front skids are resting on the ground or on support blocks.
- 5. Shut tractor down properly before dismounting.
- 6. Replace stroke control spacers (#4) as needed to support wheels at this position.

Refer to Figure 1-19:

- 7. With driveline attached to tractor, rotate driveline hanger (#1) up as shown.
- 8. Loosen nuts securing carriage bolts (#4) and adjust driveline hanger (#1) up until there is a small gap between driveline (#5) and hanger (#1).
- 9. If driveline hanger (#1) is adjusted fully up and needs to adjust higher, remove carriage bolts (#4) and reattach hanger to the upper two square holes (#2) with existing flat washers, lock washers, hex nuts, and carriage bolts (#4). Continue to adjust hanger to underside of driveline.
- Draw nuts securing carriage bolts (#4) up snug and rotate driveline hanger (#1) down. If hanger makes contact with driveline (#5), readjust hanger down until it misses the driveline.
- 11. Tighten 3/8"-16 GR5 bolts (#4) to the correct torque.

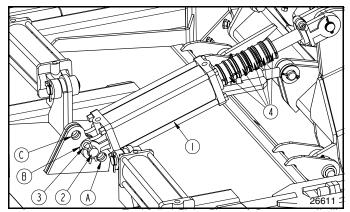
IMPORTANT: Always rotate driveline hanger down after hook-up to prevent driveline damage.

12. Rotate driveline hanger (#1) down.

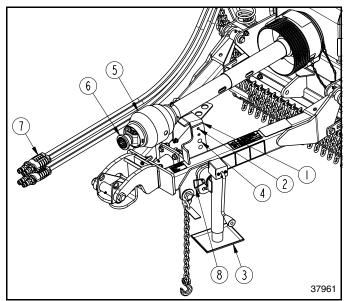
Driveline Clearance Check

Check driveline for adequate clearance under all ranges of cutter height.

- 1. With driveline shaft attached to the tractor and all stroke control spacers (#4 in Figure 1-18) removed from hydraulic cylinder (#1), slowly raise and lower cutter to its upper and lower limits while observing clearances between hitch and driveline.
- Adjust tractor drawbar height and/or length if driveline interferes. See "Drawbar Set-up" on page 12 for correct drawbar dimensions.
- 3. Cycle cylinders back and forth several times to purge cylinders and hydraulic lines of air. For additional details, see "**Purge Hydraulic System**" on page 22.

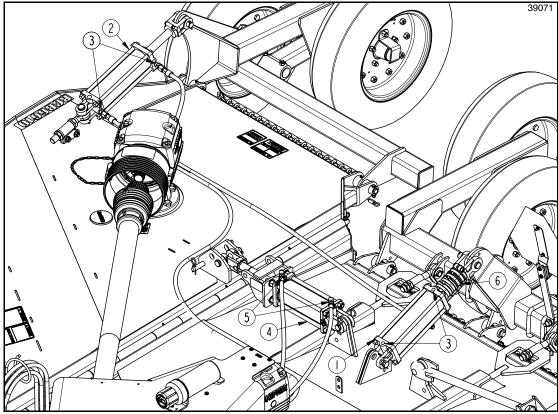


Hydraulic Lift Cylinder With Stroke Control Spacers Figure 1-18



Adjust Driveline Hanger Vertically Figure 1-19





Purge Hydraulic System Figure 1-20

Purge Hydraulic System

Refer to Figure 1-20:



Never remove or install a folding wing cylinder with cylinder rod retracted and wing folded up. The wing is unstable without its folding cylinder and can suddenly fall. Also, air trapped in a new or repaired cylinder will drop the wing suddenly when lowering the wing. Either situation can render the cutter inoperable and cause serious bodily injury or death.

Be sure center and wing decks are lowered to the ground and all hydraulic pressure is relieved before disconnecting any hydraulic lines or fittings between the Rotary Cutter and tractor hydraulic system.

Be sure tractor reservoir is filled properly before operating hydraulic cylinders. If tractor reservoir is low on hydraulic fluid, there is a chance of drawing air into the system causing jerky or uneven cylinder movements. The wing deck lift cylinder may be purged as follows:

Wing Fold Cylinders

- 1. Start tractor and lower center deck until it is supported by stroke control spacers (#5) on hydraulic cylinder (#1).
- 2. Lower wing deck until it is resting on the ground.

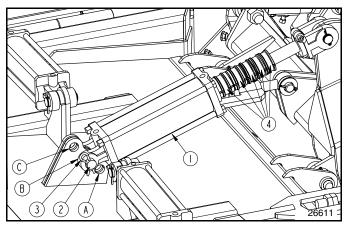
- 3. See "**Tractor Shutdown Procedure**" on page 14. Shut tractor down properly and move wing control levers back and forth to relieve all hydraulic pressure.
- 4. Slightly loosen hose fittings (#4) on wing folding cylinder (#3).
- 5. Restart tractor and slowly activate tractor control lever to extend/retract folding cylinder (#3), and to purge trapped air from the hydraulic system.
- 6. Shut tractor down properly, dismount, and tighten hose fittings (#4) on folding cylinder (#3).

Deck Lift Cylinders

Deck lift cylinders are rephasing cylinders and self purge if tractor control lever is held in deck lift position for and extended period.

- 1. Start tractor and slowly activate tractor control lift lever to extend hydraulic cylinders (#1 & #2).
- 2. Once cylinders (#1 & #2) are fully extended, continue to hold control lever in the deck lift position to allow time for hydraulic oil and trapped air to make a complete circuit through the hydraulic system.
- 3. With tractor control lever, lower and raise decks several times to verify all trapped air is removed and cylinders (#1 & #2) are operating smoothly.
- 4. If needed, repeat steps 1 thru 3 until deck left cylinders operate smoothly.





Lift Cylinder Mounting Position Figure 1-21

Lift Cylinder Mounting Position

Refer to Figure 1-21:

Lift cylinder (#1) should be mounted in lower hole (A) if cutter is equipped with 21" laminated tires or middle hole (B) if cutter is supplied with 25.5" aircraft tires, or upper hole (C) if 29" aircraft tires. Reposition lift cylinder if it is not assembled in the correct hole.

- 1. Park tractor and cutter on a level surface and raise center deck fully up.
- Without lowering cutter, shut tractor down properly before dismounting. Refer to "Tractor Shutdown Procedure" on page 14.
- 3. Place sturdy support blocks or jack stands under the four corners of the center deck.
- 4. Remove all stroke control spacers (#4) from the hydraulic cylinder rod.
- 5. Start tractor and lower center deck onto the support blocks until hydraulic cylinder hitch pin (#2) is loose.
- 6. Shut tractor down properly before dismounting.
- 7. Remove hairpin cotter (#3) and hitch pin (#2).
- 8. Reposition hydraulic cylinder to the correct mounting hole (A, B, or C) and reinsert hitch pin (#2). Secure hitch pin with hairpin cotter (#3).
- 9. Start tractor, raise deck fully up, and then shut tractor down again before dismounting.
- 10. Replace stroke control spacers (#4) and remove support blocks.
- 11. Start tractor and cycle hydraulic system by raising and lowering center deck cylinder and wing folding cylinders.

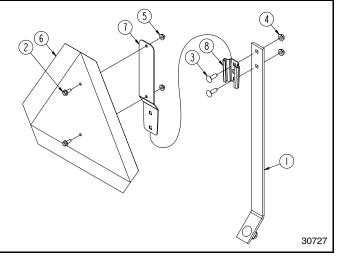
Rephase Lift Cylinders

The lift cylinders may be out of phase. See "**Rephasing Lift Cylinders**" on page 34 for detailed instructions.

Slow Moving Vehicle Sign (SMV) Refer to Figure 1-22:

Mounting blade (#7) is shipped from the factory bolted to mounting socket (#8). The two should be separated and reassembled as follows:

1. Remove hex flange nuts (#5), hex flange serrated screws (#2) and SMV sign (#6) from mounting blade (#7). Keep hardware for reuse.



SMV Sign Assembly Figure 1-22

- 2. Remove hex whiz nuts (#4), carriage bolts (#3), mounting blade (#7), and mounting socket (#8) from bracket (#1). Keep hardware for reuse.
- 3. Attach mounting socket (#8) to bracket (#1) with existing carriage bolts (#3) and hex whiz nuts (#4). Tighten whiz nuts to the correct torque.
- 4. Attach SMV sign (#6) to mounting blade (#7) with existing hex flange serrated screws (#2) and hex flange nuts (#5). Tighten nuts to the correct torque.
- 5. Insert mounting blade (#7) into mounting socket (#8).



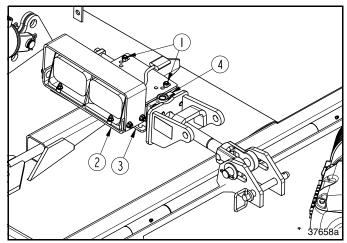
Adjust Optional Light Kit

Refer to Figure 1-23:

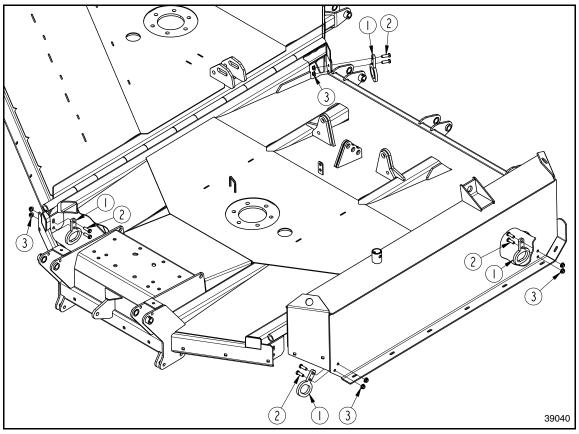
The Light Kit will need to be adjusted when purchased assembled to the cutter at the factory.

Adjust light kit as follows:

- 1. Shut tractor down properly before dismounting. Refer to "**Tractor Shutdown Procedure**" on page 14.
- 2. On the right-hand wing, loosen hex lock nuts (#1). Do not remove lock nuts.
- 3. Slide light assembly (#2) and mounting clamp (#3) as far as possible toward the rod end of hydraulic cylinder (#4).
- 4. Tighten each lock nut (#1) one-half turn in a crisscross pattern until all nuts are tightened to the correct torque.



Optional Light Kit Adjustment Figure 1-23



Remove Shipping Lugs Figure 1-24

Remove Shipping Lugs

Refer to Figure 1-24:

Tie down lugs are installed to the cutter for shipping purposes only. If included, they should be removed and discarded before the cutter is put into use.

1. Remove and discard all four shipping lugs (#1) and attaching hardware (#2 & #3).



Unhook Rotary Cutter

- 1. See "Long Term Storage" on page 48 if parking the cutter for long periods and end of season.
- 2. Disengage PTO, park on a level hard surface. Place tractor gear selector in park or set park brake.
- 3. Raise center deck fully up.
- 4. Wait for blades to come to a complete stop and then fold wing up to transport position.
- 5. Shut tractor engine off and remove switch key before dismounting from tractor.

Refer to Figure 1-25:

6. Place transport lock pin (#2) in transport lock holes (B). Make sure pin is secured with hairpin cotter (#3).

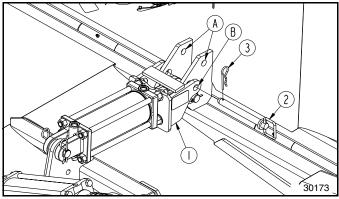
Refer to Figure 1-21 on page 23:

- 7. Remove stroke control spacers (#4) from center hydraulic cylinder.
- 8. Start tractor and lower cutter until front skids are on the ground.
- 9. Shut tractor engine off and remove switch key before dismounting tractor.
- 10. Replace stroke control spacers (#4) on lift cylinder as needed to support wheels at this height.
- 11. Return to the tractor seat. With no one around or near the cutter, move cylinder lift levers back and forth to release hydraulic line pressure.

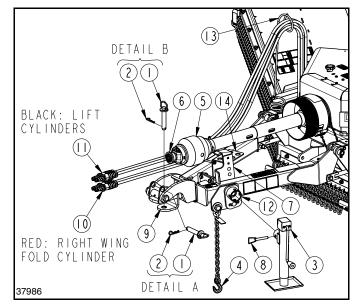
Refer to Figure 1-26:

- Remove park jack (#3) from weight box and attach to jack mount (#12) as shown. Fully insert detent pin (#8) in jack mount to secure park jack.
- 13. If needed, realign park jack (#3) to be vertical. Refer to "**Park Jack Angle Alignment**" on page 26.
- 14. Unhook hydraulic hoses (#10 & #11) from tractor duplex outlets. Store coupling ends in hose holder (#14).
- 15. Unhook hitch safety chain (#4) from tractor.
- 16. Pull back on locking collar (#6) and pull driveline (#5) from tractor PTO shaft.
- 17. Collapse driveline (#5) by pushing tractor end of driveline toward the splitter gearbox.
- 18. Rotate driveline hanger (#7) up to position shown and store driveline on hanger. If height of driveline hanger needs readjusting, refer to **"Adjust Driveline Hanger**" on page 21.
- 19. Adjust park jack (#3) to raise cutter up until all load is removed from tractor drawbar.
- 20. Remove connecting hitch pin or bolt as follows:
 - a. **Refer to Detail A in** Figure 1-26: If unhooking LP Performance hitch or standard clevis, remove hairpin cotter (#2) and hitch pin (#1).
 - b. Refer to Figure 1-11 on page 17: If unhooking bar-tite hitch, remove lock nut (#2) and bolt (#1).

- 21. Restart tractor and drive tractor slowly forward several feet.
- 22. Shut tractor down properly before dismounting.
- 23. Lower park jack (#3) until skid shoes support cutter.
- 24. Replace connecting pin/bolt (#1) as follows:
 - a. Refer to Detail A in Figure 1-26: If unhooking LP Performance hitch, insert hitch pin (#1) in horizontal hitch holes to support clevis level. Secure with hairpin cotter (#2)
 - b. **Refer to Detail B in** Figure 1-26: If unhooking standard clevis, replace connecting pin (#1) in clevis hitch pin holes and secure with hair pin cotter (#2).
 - c. See Figure 1-11 on page 17: If unhooking bar-tite hitch, remove hitch (#10) from tractor and attach it to cutter hitch (#9) with bolt (#1) and lock nut (#2) Screw lock nut on 4 or 5 full turns. Do not torque nut tight.

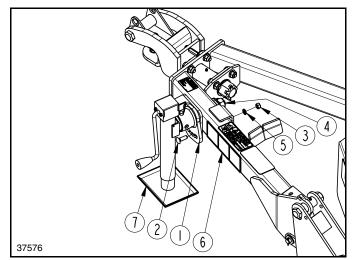


Wing Transport Lock Figure 1-25



Unhook Rotary Cutter (LP Performance Hitch Shown) Figure 1-26





Park Jack Angle Alignment Figure 2-1

Park Jack Angle Alignment

Refer to Figure 2-1:

The jack mount angle should be adjusted to position the park jack vertical while supporting the cutter hitch. This angle will vary depending on the number and size of stroke control spacers placed on the lift cylinder rod.

NOTE: If cutter is not hitched securely to a tractor, support blocks should be placed under the front skid shoes to support cutter while aligning the park jack vertically.

NOTE: Refer to decal (#6) and instructions below for jack alignment and torque values.

- 1. With cutter hitched to a tractor, lower cutter to storage height.
- 2. Shut tractor down properly before dismounting. Refer to "**Tractor Shutdown Procedure**" on page 14.
- Install park jack (#7). See "Park Jack Assembly" on page 14. Check jack angle. If jack is not vertical, proceed with step 4 below.
- 4. Remove 1/2" hex nut (#3), lock washer (#5) and carriage bolt (#2).
- 5. Loosen 1" hex nut (#4). Do not remove.
- 6. Rotate jack mount (#1) to align park jack (#7) as near vertical as possible.
- Replace 1/2"-13 x 1 1/2" GR5 carriage bolt (#2) and secure with lock washer (#5) and hex nut (#3). Tighten hex nut to the correct torque.
- 8. Tighten 1" hex nut (#4) to 645 ft-lbs.
- 9. If moving cutter, skip to step 10. If unhooking cutter, see "**Unhook Rotary Cutter**" on page 25 for detailed instructions.
- 10. If cutter is to be moved, remove park jack (#7) from hitch frame and attach it to the weight box storage base.

Leveling Center Deck & Wing

These adjustments should be made with your cutter hooked to the tractor operating the unit or to a tractor having the same drawbar height.

Center Deck Leveling

Refer to Figure 2-2 & Figure 2-3 on page 27:

- 1. Attach cutter to tractor and park on level ground.
- 2. Raise wing up and lock into position with transport lock to keep wings from falling.
- 3. Using hydraulic lift, adjust center deck height so that the front skids (#5) are 2 to 3 inches above ground.
- 4. Shut tractor down properly before dismounting. Refer to "**Tractor Shutdown Procedure**" on page 14.

NOTE: Loosening adjusting nuts (#5) will lengthen leveling rods (#2) and lower front of cutter. Tightening adjusting nuts (#5) will shorten leveling rods (#2) and raise front of cutter.

5. On both sides of the center deck are continuous hinges (#1). Measure distance from bottom of hinges to ground at the front and back. They should be equal distance off the ground at the back and 1" closer to the ground at the front than they are at the back.

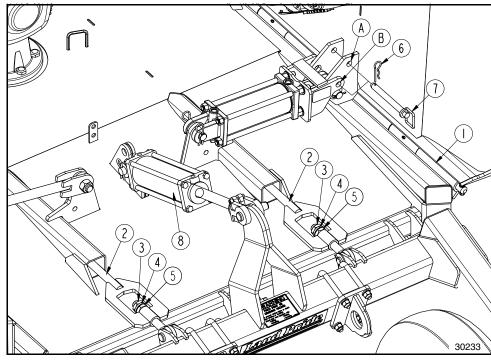
If continuous hinges are too high at the front:

- a. Loosen jam nuts (#3) several turns.
- b. Unscrew adjusting nuts (#5) an equal amount to lower front of cutter until both hinges are inclined from front to back by 1" with the front being closer to the ground than the back.

If continuous hinges are too low at the front:

- a. Loosen jam nuts (#3).
- b. Tighten adjusting nuts (#5) an equal amount to raise front of cutter until both hinges are inclined from front to back by 1" with the front being closer to the ground than the back.
- 6. Be sure left and right leveling rods (#2) have equal amounts of tension and then re-tighten jam nuts (#3) against lock washers (#4) and adjusting nuts (#5).





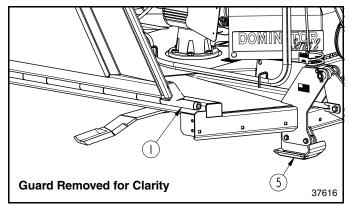
Center Deck Leveling Figure 2-2

Wing Deck Leveling

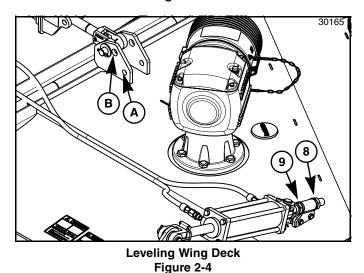
Refer to Figure 2-2:

The wing section will need adjusting if its top is not level with the center deck top when wing is unfolded.

- 1. With tractor hydraulics, raise wings fully up, remove transport lock pin (#7) from holes "B", and store in holes "A". Be sure to secure transport lock pin with hairpin cotter (#6).
- 2. Lower wing to ground position and pull cutter straight forward six to ten feet to allow outer wing wheel to properly align itself.
- 3. With tractor hydraulics, fully extend rephasing cylinders ensuring all cylinders are fully extended. Then lower cutter to approximate cutting height.
- 4. Shut tractor down properly before dismounting. Refer to "**Tractor Shutdown Procedure**" on page 14.
- 5. Check wing top to see if it is level with top of center deck. If outer edge of wing is higher or lower than the center deck, then level wing as follows:
 - a. If the outer wing edge is higher than the center deck, loosen adjusting nut (#9) to lower the outer wing edge until wing is level. Tighten adjusting nut (#10) to the correct torque when level.
 - b. If the outer wing edge is lower than the center deck, loosen adjusting nut (#10) several turns and tighten adjusting nut (#9) until wing is level.
 Tighten adjusting nut (#10) to the correct torque when level.



Front Skid Position Figure 2-3





Cutting Height Adjustment

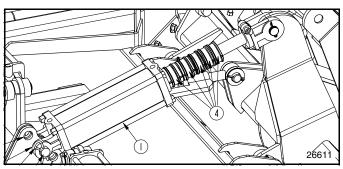
NOTE: Make all cutting height adjustments in the field using height of cut grass/material as a guide. Do not measure blade height above ground as the non-operating blade height will be different than the operating blade height.

Refer to Figure 2-5:

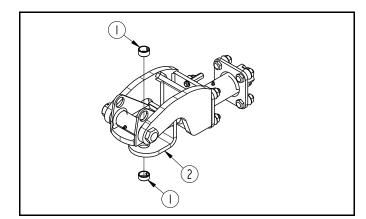
- At the cutting site, unfold wings and raise center deck fully up with lift cylinder (#1). See instructions for "Unfolding Wing Deck" on page 18.
- 2. Shut tractor down properly before dismounting. Refer to **"Tractor Shutdown Procedure"** on page 14.
- 3. Remove all stroke control spacers (#4) from center hydraulic cylinder (#1) by spreading them apart at the break line. Store spacers in a location they can be retrieved.
- 4. Start tractor and engage blades. See instructions for "Engage Blades" on page 34.
- 5. Using tractor control lever, adjust cutter to the desired cutting height and then travel forward for approximately 20 to 50 feet.
- 6. Shut tractor down properly before dismounting. Refer to "**Tractor Shutdown Procedure**" on page 14.
- Measure height of cut grass/material. This distance is the cutting height. If this height is acceptable, continue with step 8. If this height is unacceptable, repeat steps 4 to 7 until desired height is achieved.
- 8. Select required size and number of stroke control spacers (#4) that will fit on the center hydraulic cylinder rod. The following spacers are available.
 - (#1): Two 1" spacers
 - (#2): One 1 1/4" spacer
 - (#3): One 1 1/2" spacer
 - (#4): One 1 3/4" spacer
- 9. Return to the tractor and raise Rotary Cutter up again. With tractor shut off and switch key removed, install selected stroke control spacers on the center hydraulic cylinder rod. Do not install spacers on the wing rephasing cylinders.
- Return to tractor and lower cutter against stroke control spacers. Recheck cutting height in steps 4 to 7. If needed, adjust size and quantity of stroke control spacers until desired height is achieved.

NOTE: Removing spacers lowers the cutting height and adding spacers raises the cutting height.

11. Keep remaining spacers with tractor for field adjustments.



Cutting Height Adjustment Figure 2-5



LP Performance Hitch Hoe Size Figure 2-6

LP Performance Hitch Hole Size

Refer to Figure 2-6:

The LP Performance hitch is designed to receive 1" diameter hitch pins. To convert the hitch to receive 1 1/4" diameter hitch pins, knock out upper and lower bushings (#1) in clevis (#2).



Startup Checklist

Hazard control and accident prevention are dependent upon the awareness, concern, prudence, and proper training involved in the operation, transport, storage, and maintenance of the Rotary Cutter. Therefore, it is absolutely essential that no one operates the cutter without first having read, fully understood, and become totally familiar with the Operator's Manual. Make sure the operator has paid particular attention to:

- Important Safety Information, pages 1 to 10
- Section 1: Assembly & Set-up, page 12
- Section 2: Adjustments, page 26
- Section 3: Operating Instructions, page 29
- Section 4: Options & Accessories, page 36

• Section 5: Maintenance & Lubrication, page 40

Also make sure the operator has completed the Operating Checklist below before using the cutter.

Operating Checklist

~	Check	Page
	Make sure all guards and shields are in place and in good working condition. Refer to "Important Safety Information".	Page 1
	Follow hook-up & driveline installation instructions. Refer to "Section 1: Assembly & Set-up".	Page 12
	Make all required adjustments. Refer to "Section 2: Adjustments".	Page 26
	Preform all required maintenance. Refer to "Section 5: Maintenance & Lubrication".	Page 40
	Lubricate cutter and driveline as needed. Refer to "Lubrication Points".	Page 49
	Lubricate all gearboxes and replace oil plugs properly. Refer to Gearbox Lubrication.	Page 52
	Check cutter initially and periodically for loose bolts and pins. Refer to "Torque Values Chart".	Page 62

Safety Information

Operate only tractors equipped with Roll-Over Protective Structure (ROPS) and seat belt. Fasten seat belt snugly and securely to help protect operator from being thrown, crushed, or severely injured in a rollover or from falling off the tractor and being ran over by the tractor and/or cutter.

Never allow riders including children on the tractor or cutter. They can fall and be ran over, become entangled in rotating components, and/or pinched by moving components causing serious injury or death.

Always disconnect main driveline from tractor PTO before servicing underside of cutter. PTO can be engaged if tractor is started causing cutter damage, bodily injury or death.

Do not raise wing up past 45 degrees with PTO engaged and drivelines rotating. Objects can be thrown by rotating blades. Always keep people away from a cutter that is operating.

Do not operate cutter with a bent or broken driveline. Such a driveline can break apart while rotating at high speeds causing serious injury or death. Always remove Rotary Cutter from service until damaged driveline is repaired or replaced.

Keep others away from the cutter while it is operating. Rotary Cutters have the ability to discharge objects at high speeds causing serious injury or death. The use of front & rear safety guards is strongly recommended and should always be used when cutting along highways and in areas where bystanders are present. Stop blade rotation if bystanders are nearby.

DANGER

Do not operate cutter without wing and weight box attached to the center deck. Removing the wing or weight box will expose blades and increase risk of cutter overturning. Exposed blades can result in serious injury and/or death.

Do not engage tractor PTO while hooking-up and unhooking driveline or while someone is standing near the driveline. A person's body and/or clothing can become entangled in the driveline resulting in serious injury or death.

Never place hands or feet under the deck or attempt to make adjustments to the cutter with PTO engaged. Cutter blades rotating at high speeds cannot be seen and are located close to the deck housing. Body extremities can be cut off instantly.

Do not operate on or travel across steep inclines where a tractor or cutter could roll-over resulting in serious injury or death. Consult your tractor's manual for acceptable inclines the tractor is capable of traveling across.

Clear area to be cut of debris and other unforeseen removable objects before cutting. Mark any potential hazards that cannot be removed such as tree stumps, posts, large rocks, holes, and drop-offs with a visible flag.



To avoid serious injury or death:

- Tractor PTO shield and gearbox shaft shields must be secured in place when operating cutter to avoid injury or death from entanglement in driveline.
- Do not use cutting blades as a fan. Cutting blades are not properly designed or guarded for this use. Using cutter as a fan can result in injury and/or death.

To avoid serious injury or death:

- Always disengage PTO, place tractor in park or set park brake, shut tractor engine off, remove switch key, and wait for blades to stop before dismounting from tractor.
- Wait for blades to come to a complete stop before accessing blade bolts through blade bolt access hole.
- Do not operate cutter with loose pins, bolts, or nuts. Loose hardware can result in a serious breakdown causing bodily injury or death.
- Do not operate cutter with a hitch or hitch pin that is excessively worn, has structural cracks, is bent, or is broken. The hitch and/or hitch pin can break apart separating cutter from tractor causing serious injury or death.
- Do not use PTO adapters. A PTO adapter will increase strain on the tractor's PTO shaft resulting in possible damage to shaft and driveline. It will also defeat the purpose of the tractor's master shield.

To avoid serious injury:

- Do not exceed the rated cutting capacity. See Specifications & Capacities for specified cutting capacity. Using this cutter for any other type of work can damage drive components, cutter blades and deck components.
- Buildup of debris around moving parts is a fire hazard. Keep drivelines & other rotating parts free from debris to avoid serious injury and property damage.
- Improper oil level can cause bearing failure and be a fire hazard. Maintain proper gearbox oil level to avoid serious injury and property damage.
- Do not over speed PTO or machine damage may result. Many tractors provide both 540 and 1,000 rpm PTO speeds. Check your tractor's manual to determine its capabilities.
 - RC series cutters are designed for 540 rpm rear PTO.
 - RCM series cutters are designed for 1000 rpm rear PTO.

IMPORTANT: Avoid catching hydraulic hoses on brush, posts, stumps, and other protrusions that could damage and/or break them.

IMPORTANT: Maintain correct PTO speed. Loss of PTO speed will allow blades to swing back and result in ragged, uneven cutting. Excessive speed will cause damage to the power train components.

IMPORTANT: If wing driveline profile is bent or twisted, disconnect that driveline from the wing gearbox before folding the wing up. This will protect both the wing and divider gearbox. Repair driveline before putting cutter back into service.

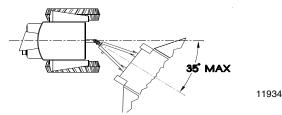
IMPORTANT: This Rotary Cutter is equipped with free swinging cutting blades to reduce shock loads. However, it is best to avoid striking obstacles for your safety and to protect the cutter from damage.

IMPORTANT: Watch while making tight turns to ensure that the rear tractor tires and lower 3-point arms do not make contact with cutter hitch, driveline or deck. Keep lower 3-point arms raised at all times when hitched to a pull-type cutter.

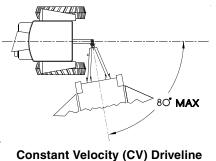
Avoid Extreme Turning Angles Refer to Figure 3-1 & Figure 3-2:

Plan your field cutting to minimize number of turns, especially extreme turning angles. Avoid tractor-to-cutter turning angles that exceed driveline maximum turning angle. If the turn cannot be avoided, disengage tractor PTO and wait for the driveline to stop rotating before making the turn.

- Standard Conventional Driveline: Maximum turning angle = 35°.
- Constant Velocity Driveline: Maximum turning angle = 80°.



Conventional U-Joint Driveline Figure 3-1



onstant Velocity (CV) Driveline Figure 3-2 20795



Tractor & Cutter Inspection

Make the following inspections with cutter attached to a tractor and cutter parked on a level surface, PTO disengaged, and cutter blades stopped.

- 1. Inspect tractor safety equipment to make sure it is in good working condition.
- 2. Inspect cutter safety equipment to make sure it is installed and in good working condition.
- 3. Check driveline to make certain it is securely connected to the tractor PTO shaft and cutter gearbox shaft. Also, make certain that the guards are in good working condition and in place.
- 4. Check driveline hanger. Make sure it is rotated down away from the driveline.
- 5. Remove 3-point lower arms or secure them in the raised position so they do not interfere with driveline, hoses, or hitch.
- 6. Check all hoses and wires to be sure that they will not pinch or come in contact with rotating drivelines.
- Start tractor and carefully raise and lower implement to ensure tractor drawbar, tires, and other equipment on the tractor do not contact cutter or PTO driveline. See also "Driveline Clearance Check" on page 21
- 8. Raise center deck fully up.
- Shut tractor down properly without lowering implement. Refer to "Tractor Shutdown Procedure" on page 14.
- 10. Place sturdy support blocks or jack stands under the four center deck corners.
- 11. Start tractor and lower center deck down onto the supports.
- 12. Shut tractor down properly before dismounting. Refer to "**Tractor Shutdown Procedure**" on page 14.
- 13. With cutter resting on solid supports, PTO disengaged, and blade rotation completely stopped:
 - Check for and remove foreign objects wrapped around blade spindles.
 - Check for nicked, bent, broken, and worn cutting blades. Replace or sharpen blades as required. Refer to "**Cutter Blade Maintenance**" on page 42.
- 14. Inspect hydraulic hoses for wear, damage, and hydraulic leaks. See **"Avoid High Pressure Fluids Hazard**" on page 3. Replace damaged and worn hoses with genuine Land Pride parts.
- 15. Make repairs to cutter and tractor before continuing with "Blade Operation Inspection" on this page.

Blade Operation Inspection

Tractor PTO shield and gearbox shaft shields must be secured in place when operating cutter to avoid injury or death from entanglement in driveline.



Always disengage PTO, place tractor in park or set park brake, shut tractor engine off, remove switch key, and wait for blades to stop before dismounting from tractor.

IMPORTANT: Read all **"Safety Information**" starting on page 29 before operating the cutter.

IMPORTANT: Stop PTO immediately if vibration continues after a few revolutions during start-up and anytime vibration occurs thereafter.

IMPORTANT: Do not exceed cutter's rated PTO speed (540 or 1000 rpm). Excessive PTO speed will cause damage to the power train components.

- 1. Make sure cutter blades are not locked against each other. See "Field Set-up" on page 33.
- Remove support blocks or jack stands and set transport locks for field operations. See "Transport Lock" on page 32
- 3. Lower cutter decks down until blades are about 2" off the ground.
- Start tractor and set throttle speed just above idle. Use tractor's PTO soft start option if available. Slowly engage PTO to get blades rotating. (Also see "Engage Blades" instructions on page 34.)
- 5. Initial start-up vibration is normal and should stop after a few revolutions. Stop PTO rotation immediately if vibration continues.
- 6. Once cutter is running smoothly, increase throttle to full PTO speed. If cutter vibrates excessively for 3 seconds at full speed, immediately disengage PTO, shut tractor down properly, and remove switch key.
- 7. Block center deck up before working under cutter.
- 8. Check blades for a locked-up situation. Unlock blades if locked-up.
- 9. Check for other probable causes such as broken or bent blades, loose blades, loose gearbox mounting bolts, and bent driveline.
- 10. Taking proper precautions, make necessary repairs, and adjustments.
- 11. Repeat steps 1 to 10 above to make certain vibration problems are fixed before putting the cutter back into service.



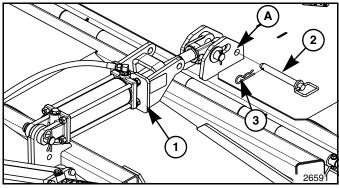
Transport Lock

IMPORTANT: Always disengage tractor's PTO & wait for blades to come to a complete stop before raising cutter wing to transport position. Wing driveline, gearbox, and splitter gearbox can be damaged if driveline is turning.

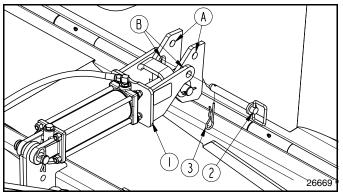
NOTE: The wing is controlled with a hydraulic folding cylinder. Be certain that the wing hydraulics are attached to the tractor and the hydraulic hoses are full of oil before proceeding.

The cutter wing will need to be raised before transporting on a roadway, through narrow gate openings and when servicing the deck underside.

- 1. Disengage tractor PTO and wait for cutter blades to come to a complete stop.
- 2. Fold cutter wing fully up with hydraulics. Shut tractor off and dismount.
- 3. See Figure 3-3: Remove hairpin cotter (#3) from transport lock pin (#2). Remove transport lock from storage position (A).



Transport Lock, Field Position Figure 3-3



Transport Lock. Wing Folded Up Figure 3-4

4. See Figure 3-4: Insert transport lock pin (#2) through transport lock holes and slotted holes (B). Secure lock pin with hairpin cotter (#3).

Transporting

Always raise wing and set transport lock before transporting from one work site to another and before traveling on public roadways. The wing can fall if not secured with transport lock causing a serious injury or death.

WARNING

When traveling on public roads, use accessory lights, SMV sign, clean reflectors, and other adequate devices to warn operators in other vehicles of your presence. If cutter blocks visibility of SMV sign, relocate SMV sign so it is visible from the back at all times. Always comply with all federal, state, and local laws.

Do not exceed maximum transport speed of 20 MPH with cutter attached. Travel below 20 MPH on rough terrain. The cutter can lose a tire or tires can break apart causing the operator to lose control of tractor and/or implement.

IMPORTANT: Make slow tight turns to the right and left to determine if and at what angle the rear tractor tires may come in contact with the deck and/or hitch.

IMPORTANT: Remove or cover SMV sign when hauling cutter on a truck or trailer exceeding speeds of 25 mph.

- 1. Select a safe ground speed when transporting from one area to another. Maximum transport speed for the Rotary Cutter is 20 mph. **DO NOT EXCEED**.
- 2. Be sure to reduce tractor ground speed when turning and leave enough clearance so the cutter does not contact obstacles such as buildings, trees, or fences.
- 3. Always raise cutter wing and set transport lock pin before traveling on public roadways.
- 4. When traveling on roadways, transport in such a way that faster moving vehicles may pass you safely.
- 5. Shift tractor to a lower gear when traveling over rough or hilly terrain.

Road Side Cutting

When cutting road sides, Land pride recommends the Rotary Cutter be equipped with double row chain guards to stop flying objects and Land Pride's LED Light Kit to make operator and equipment more visible. For additional information, refer to **"Safety Guard Options"** on page 39 and **"Light Kit Option (LED)"** on page 36.



Field Set-up

The following operational procedures should be carried out by the tractor operator. Other persons should not be in the area. All cutter operations including field set-up should be stopped when other persons are in the vicinity.

IMPORTANT: Cutting should **not be** done in wet conditions. Wet material will build up on the deck underside causing additional horsepower loss, high wear, and poor discharge.

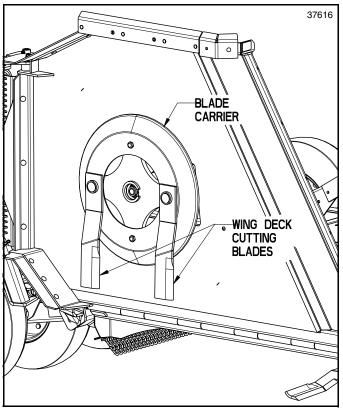
IMPORTANT: Cutting blades may become locked together (overlapped) when wing is raised for transport. Operating cutter in this condition will result in severe deck vibration. Inspect wing for locked blades prior to power-on operation. Use a pry bar or other tool to separate blades.

Inspect Field and Cutter Blades

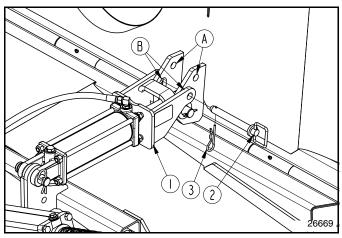
1. Thoroughly inspect area to be cut for debris and unforeseen objects. Remove all potential hazards and mark any that cannot be removed.

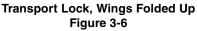
Refer to Figure 3-5:

2. Inspect wing blade carriers and cutting blades for locked blades prior to lowering the wings. Use a pry bar or other tool to separate locked blades.



Wing Deck Blade Positioning (RC6610 Shown) Figure 3-5





Lower Wing Down & Set Cutting Height *Refer to Figure 3-6:*

- 1. Start tractor and raise wing up to release any tension on the transport lock pin.
- Without lowering cutter, shut tractor down properly before dismounting. Refer to "Tractor Shutdown Procedure" on page 14.
- 3. Remove hairpin cotter (#3) and transport lock pin (#2) from the wing section.
- 4. Insert transport lock pin in hole (A) for storage. Secure lock pin with hairpin cotter.
- 5. Start tractor and lower both wings down.
- 6. Adjust cutter to field cutting height. For detailed instructions, see "Cutting Height Adjustment" on page 28.

Set Wing Lift Lever In Float Position

IMPORTANT: The wing folding lever should be in float position to avoid damage to the wing hydraulic cylinder and axle while cutting on uneven terrain.

Use the float position of your tractor's hydraulic system to provide automatic floating of the wing for varying terrain conditions. This will ensure that the wing gauge wheel is in continuous contact with the ground at all times.



Rephasing Lift Cylinders

The lift cylinders may, after a period of time, get out of time or phase. The effects of this can be seen when one deck of the cutter is higher or lower than the other because its lift cylinder is retracted more than the other lift cylinder. Also, tractors with pressure detents do not allow hydraulic systems to "automatically" rephase at the top of the lift cycle. This must be done manually or the rephasing cylinders will not function properly.

To rephase lift cylinders manually, raise cutter completely up and hold tractor hydraulic lever on for several seconds more to give cylinders time to rephase. This should be done each time the cutter is raised and whenever the decks are uneven.

Momentarily reversing the hydraulic lever immediately after rephasing allows the cylinders to retract about 1/2" and will help maintain a level cutter during transport.

Select Gear Range

Optimum ground speed depends on density of material being cut, horsepower rating of tractor, and (in some cases) terrain. Always operate tractor at cutter's full-rated PTO speed in a gear range that allows the cutter to make a smooth cut without lugging the tractor down, usually between 2 to 5 mph. Loss of PTO speed will allow the blades to hinge back and result in ragged, uneven cutting.

Engage Blades

IMPORTANT: Cutter blades can lock-up against each other during start-up and shut-down especially if tractor's PTO engagement is "INSTANT ON" and "INSTANT OFF". Follow Blade Engagement and Blade Disengagement instructions to help eliminate blade lock up.

- 1. Select a gear range that will allow cutter to make a smooth cut without lugging the tractor down. See "Select Gear Range" above for instructions.
- 2. With wing lowered, increase throttle to a speed just enough to get the cutter started without stalling tractor while slowly engaging PTO. Use tractor's PTO soft start option if available.
- 3. Ensure all power shafts are rotating and cutter is not vibrating excessively after ramping up to full PTO speed for at least 3 seconds. If excessive vibration continues after 3 seconds at full PTO speed, disengage PTO immediately, shut down tractor, and remove switch key. Wait for blades to come to a complete stop before dismounting tractor.
- Investigate the cause if cutter was shut down due to excessive vibration. See "Blade Operation Inspection" on page 31 for detailed instructions.
- Periodically, shut tractor down properly and dismount to do an inspection. Refer to "Tractor Shutdown Procedure" on page 14 for proper shut down procedure.

- Periodically, shut tractor down properly and dismount to do an inspection. Refer to "Tractor Shutdown Procedure" on page 14 for proper shut down procedure.
- 7. Dismount tractor and check for objects wrapped around blade spindles. Block deck up before removing objects.
- Frequently inspect cutter for loose bolts and nuts. Tighten all loose hardware as indicated in the "Torque Values Chart" on page 62.

Disengage Blades

- 1. Slowly decrease throttle speed until engine idle speed is reached.
- 2. Disengage PTO.
- 3. Stay on the tractor until the blades have come to a complete stop. Always place tractor in park or set park brake, shut tractor engine off, and remove switch key before dismounting.



General Operating Instructions

Now that you have familiarized yourself with the Operator's Manual, completed the Operator's Checklist, properly attached your cutter to your tractor, made the right leveling adjustments, and preset your cutting height, you're almost ready to begin using your Land Pride RCB6610 or RCBM6610 Series 2 Smooth Top Rotary Cutter.

It's now time to do a running operational safety check. If at any time during this safety check you detect a malfunction in either the cutter or tractor, shut the tractor off immediately, remove the key, and make necessary repairs or adjustments before continuing on.

Make sure the tractor's park brake is engaged, tractor's PTO is disengaged, and cutter is resting on the ground with the wing down. Start tractor and back throttle off until the engine is at a low idle. With tractor's rear hydraulic lift control lever, raise the cutter to transport position making sure that the PTO shaft is not in a bind and does not come in contact with the cutter frame. Lower unit to cutting position and with the tractor still at a low idle, engage PTO shaft. If everything is running smoothly at this point, increase engine RPM until the tractors engine reaches full PTO operating speed which will be either 540 or 1000 RPM. Slowly raise the cutter to transport height to make sure the driveline does not bind or chatter. Then return engine to low idle, disengage PTO, and position adjustable stops on the cutter's hydraulic lift cylinder so the cutter can be consistently returned to the same cutting and transport height. Watch while making a tight turn to ensure that the rear tractor tires do not contact the deck or hitch. Also, be sure tractor 3-point arms are raised and will not contact main driveline.

You should now be ready to transport to your cutting site at a safe ground speed. On roadways, transport in such a manner that faster moving vehicles can easily see you and pass you safely. Reduce your speed when traveling over rough and hilly terrain. Avoid quick or sharp steering corrections. Take extra care to ensure that the mower doesn't come into contact with obstacles such as trees, buildings, or fences. Use optional light kit and appropriate reflective devices to provide adequate warning to pedestrians and other vehicle operators when traveling on public roads and in the dark of night. Comply with all local, state and federal laws.

It is important that you inspect the area where you will be cutting and clear it of safety hazards and foreign objects either before or after you arrive at the cutting site. Never assume the area is clear. Cut only in areas which you are familiar with and are free of debris and unseen objects. Extremely tall grass should be cut twice to detect potential hazards. In the event you do strike an object stop the cutter and tractor immediately to inspect and make necessary repairs to the cutter before resuming operation. It really pays to inspect a new area and to develop a safe plan before cutting. To produce a clean cut, normal mowing speed will be between 2-5 mph at full tractor PTO speed. Make a tractor gear and range selection that will maintain this combination. Generally the quality of cut will be better at lower ground speeds and cutting denser ground cover may create the need to slow down. You will want to avoid very low cutting heights especially on extremely uneven terrain. Always cut downward on slopes and avoid crossing the face of steep slopes. Avoid sharp drops and cross diagonally through dips to prevent hanging up the tractor and cutter. Slow down in turns and avoid sharp turns if at all possible. Remember to look back often.

Now that you're prepared and well briefed you may begin cutting. Begin cutting by doing the following:

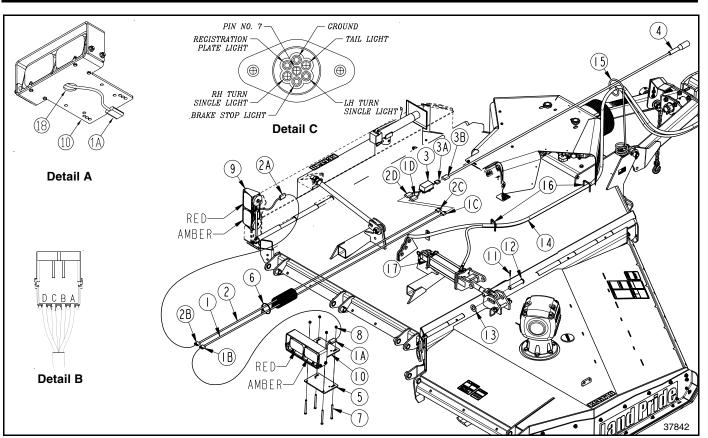
- Reduce tractor's engine rpm
- Make sure cutter wing is on the ground and in cutting position.
- Engage PTO, raise engine rpm to the appropriate PTO speed, and begin mowing.

Operators of models with a conventional main driveline must plan ahead and choose a cutting pattern that allows for wider turns. Try increasing or decreasing ground speed to determine the effect on quality of cut. With a little practice you will be pleased with what you and your Land Pride Smooth Top Cutter can do.

When you are done mowing, need to take a break, or just need to make a few adjustments to the cutter, remember to always do the following:

- Reduce tractor's engine rpm and disengage PTO.
- Stop on level ground, place gear selector in park or set park brake, turn off engine, remove switch key, and stay on the tractor until cutter blades have come to a complete stop.

Section 4: Options & Accessories



Light Kit (Shown on RC5610 Deck) Figure 4-1

Light Kit Option (LED)

331-683A Folding Cutter Light Kit 3 1/2" **Refer to Figure 4-1:**

The lead wiring harness (#4) is equipped with a 7-way round pin connector. Make sure your tractor is equipped with the 7-pin electrical outlet shown in **Detail C** before purchasing this product.

- 1. Lower cutter center deck and wing deck down until unit is resting on the lift cylinder stops and both wings are on the ground.
- 2. Shut tractor down properly before dismounting. Refer to "**Tractor Shutdown Procedure**" on page 14.
- 3. Before dismounting, move hydraulic control levers back and forth several times to release all hydraulic pressure in hydraulic lines to the cutter.
- 4. On the right-hand wing, remove cotter pin (#11), flat washer (#13), and clevis pin (#12).

NOTE: Hydraulic hose (#14) must be located above light assembly (#10) as shown.

5. If not already done, thread connector (#1A) through hole (#18) as shown in **Detail A**.

NOTE: Amber and red lights are located as shown with two lamps facing back and one lamp facing forward on each light assembly.

- Attach right-hand light assembly (#10) above hydraulic cylinder (#17) with mounting clamp (#5) under the hydraulic cylinder.
- Nuts (#8) must be on top. Secure unit with 3/8"-16 x 5" GR5 bolts (#7) and locknuts (#8). Draw locknuts up snug, do not tighten at this time.
- Replace clevis pin (#12) and secure with flat washer (#13) and cotter pin (#11). Bend one or more legs of cotter pin to keep pin from falling out.
- 9. Slide light assembly (#10) and mounting clamp (#5) as far as possible toward the rod end of hydraulic cylinder (#17).
- 10. Tighten each lock nut (#8) one-half turn in a crisscross pattern until all nuts are tightened to the correct torque.
- 11. Locate magnetic light assembly (#9) outside of weight box as shown.

NOTE: Right-hand wire harness (#1) has a red wire showing at both ends. Left-hand harness (#2) has a yellow wire showing at both ends.

NOTE: See Detail B: Pins in connectors are labeled A, B, C, & D. Match yellow and red wires with same pin letters when attaching wire harness to light assemblies (#9 & #10) & enhance module (#3).





NOTE: Route wire harnesses (#1, #2, & #4) alongside hydraulic hoses. Make sure harnesses will not become pinched as the deck is raised and lowered and wings are folded up and down.

- 12. Red wires in connectors (#1A & #1B) are attached to pin "D" shown in Detail B on page 36. Plug connectors (#1A & #1B) together.
- Yellow wires in connectors (#2A & #2B) are attached to pin "B" shown in Detail B on page 36. Plug connectors (#2A & #2B) together.
- 14. Route wire harnesses (#1 & #2) to enhance module (#3). Plug connectors at the enhance module to harness (#1 & #2) as follows:
 - a. Red wires in connectors (#1C & #1D) are attached to pin "B" shown in Detail B on page 36. Plug connectors (#1C & #1D) together.
 - b. Yellow wires in connectors (#2C & #2D) are attached to pin "C" shown in Detail B on page 36 Plug connectors (#2C & #2D) together.
- 15. Attach connector (#3A) to connector (#3B) on lead wire harness (#4).
- 16. Route lead wire harness (#4) through hose guides (#16) and spring hose loop (#15).
- 17. Connect harness (#4) to the tractor's 7-way round pin receiver.
- 18. Start tractor and operate lights to verify hook-up is operating properly:
 - a. Turn on head lights to verify red lights illuminate.
 - b. Turn on flasher lights to verify amber light are blinking on and off.
- 19. If the lights did not operate properly, recheck hook-up of wire harnesses (#1 & #2). Make necessary changes to the harnesses and repeat step 18.
- 20. Recheck wire harness routing to make sure wires will not be pinched as wing decks are folded and unfolded and while raising and lowering cutter height.
- 21. Add cable ties (#6) to wire harnesses (#1, #2, & #4) as needed to secure them in place.

Tool Box Option

330-869A TOOLBOX

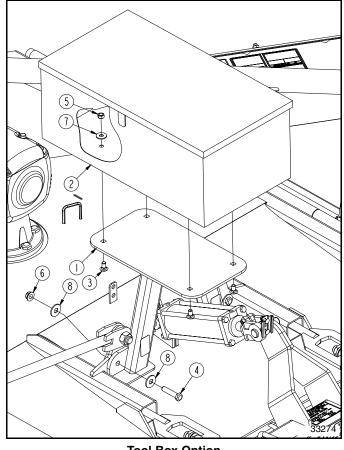
Refer to Figure 4-2:

Land Pride offers a 30" wide x 16" deep x 12" high tool box complete with locking lid and support mount for mounting above the center deck lift cylinder. Padlock for locking toolbox is supplied by customer.

NOTE: Tool Box and Mechanical Winch use the same mount. Therefore, only one can be selected.

Installation Instructions

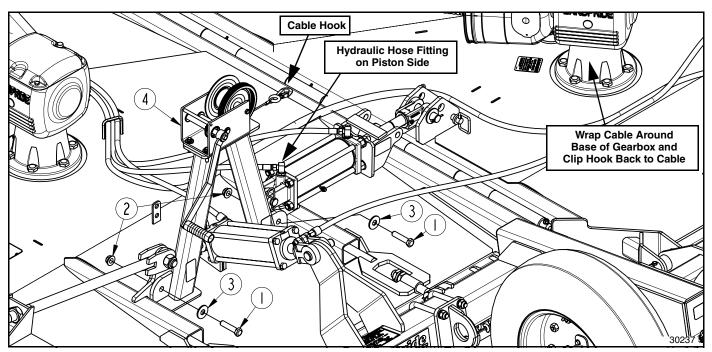
- 1. Attach toolbox mounting frame (#1) to the center deck in the location shown with 5/8"-11 x 2 3/4" GR5 cap screws (#4), flat washers (#8), and hex flange lock nuts (#6). Tighten nuts to the correct torque.
- Attach toolbox (#2) to mounting frame with 1/2"-13 x 1" GR5 carriage bolt (#3), flat washers (#7), and hex lock nut (#5). Tighten nuts to the correct torque.
- 3. Remove manual holder from splitter gearbox cover and attach to angle brackets on toolbox mounting frame (#1).



Tool Box Option Figure 4-2

Section 4: Options & Accessories





Mechanical Winch Installation Figure 4-3

Mechanical Wing Lift

330-414A RC56 Mechanical Winch Kit

Refer to Figure 4-3:

An optional mechanical winch kit is available for raising the wing to transport position when the hydraulic system is not working or when the towing vehicle is not equipped with the proper hydraulic connections.

NOTE: Tool Box and Mechanical Winch use the same mount. Therefore, only one can be selected.

Installation Instructions

 Attach winch mounting frame (#1) to the center deck as shown with 5/8"-11 x 2 3/4" GR5 cap screws (#2), flat washers (#4), and hex flange lock nuts (#3). Tighten nuts to the correct torque.

Operating Instructions



Make sure no one is in the area where the deck will be raised. The cable could come loose or break and drop the wing suddenly causing serious bodily injury or death.

IMPORTANT: If wing driveline profile is bent or twisted, disconnect that driveline from the wing gearbox before folding the wing up. This will protect both the wing and divider gearbox. Repair driveline before putting cutter back into service.

- 1. Pull cable hook with cable out pass the gearbox.
- 2. Attach cable to wing deck by routing cable around the gearbox base and clipping cable hook back to the cable or by hooking the cable to the wing deck side panel. Make sure the cable is secured and will not slip or come loose before raising the deck up.
- 3. Turn mechanical winch handle to raise deck. If cylinder rod will not retract while raising the wing up, loosen hydraulic hose fitting on the piston side of the cylinder to allow pressure to bleed off while raising the wing up.
- Secure wing deck in the raised position with the cylinder transport lock. See "Transport Lock" instructions on page 32.
- 5. Unhook cable and reel cable up with the hand crank.



Safety Guard Options



Rotary Cutters have the ability to discharge objects at high speeds; therefore, the use of front and rear safety guards is strongly recommended when cutting. Specifically, double row chain guards should be used along highways and in areas where people may be present.

Safety shields will not stop all objects. Therefore, Land Pride recommends using extreme caution when cutting in public areas. Stop blade rotation if bystanders come within several hundred feet.

Land Pride offers four types of safety guards to best suit your application: rubber skirt guards, single row chainguards, double row chainguards, and double row chainguards with cable.

- Rubber skirt guards are designed for light duty applications.
- Single row chainguards are constructed with a single row of hanging chain links. They can withstand harsher applications than rubber skirts.
- Double row chainguards are constructed with two staggered rows of hanging chain links. The second row provides an additional barrier for stopping thrown objects.
- Double row chainguards with cable are constructed with a double row of hanging chain links and a steel cable threaded through the bottom hanging chain links. This restricts the hanging links from spreading apart when hit by solid objects.

Rubber Guards

330-513A	Front Rubber Safety Guards
330-525A	Rear Rubber Safety Guards

Single Row Chain Guards

330-512A	Front Single Row Chainguards
330-524A	Rear Single Row Chainguards

Double Row Chain Guards

330-514A	Fro	ont Do	uble	Row	Ch	aingua	ards

330-526A Rear Double Row Chainguards

Double Row Chain Guards with Cable

330-515A Front Double Row Chainguards with Cable330-527A Rear Double Row Chainguards with Cable

Low Lift Blade Accessory

Land Pride recommends low lift blades when cutting tall Johnson Grass and brush as they provide a better quality of cut when cutting these materials. See Figure 5-6 on page 42 for Low Lift Blade Part Numbers.

Tire & Axle Options

Land Pride offers five different tire options and four axle arrangements to best suit your application:

- Laminated tires: They are constructed of laminated layers of solid rubber that will never go flat.
- New tires: They are available in foam filled and air filled. Both are built tough to withstand the rugged use a cutter receives and to provides a smoother ride when transporting. Foam filled tires won't go flat.
- Used aircraft tires: Available in two sizes, they are built tough to withstand the rugged use a cutter receives and to provide a smoother ride when transporting.
- 5- Wheel standard axle arrangement: Four on transport axle and one wing axle.
- 6 Wheel standard axle arrangement: Four on transport axle and two on wing axle.
- 5 Wheel tandem axle arrangement: Four on transport axle and one non tandem on wing axle.
- 6 Wheel tandem axle arrangement: Four on transport axle and two on the wing axle.

Hitch Options

The cutter is factory supplied with the standard clevis hitch. Other optional hitches are available. See "**Hitch Types**" on page 13 for description of all hitches.

Standard Clevis Hitch
Bar-Tite Hitch (Optional)
Ball Hitch (Optional)
Pintle Hitch (Optional)
LP Performance Hitch (Optional)

Selector Control Valve Kit

312-316A 2-Way Selector Valve Kit

This kit is for tractors needing an additional duplex outlet. It converts one duplex outlets into two with a control valve. A selector switch on the control valve selects which of the two duplex outlets is operational with the tractor hydraulic control lever.



General Maintenance Information

Proper servicing and adjustments are key to the long life of any implement. With careful inspection and routine maintenance, you can avoid costly downtime and repair.

The parts on your Rotary Cutter have been specially designed and should only be replaced with genuine Land Pride parts. Do not alter the cutter in a way which will adversely affect its performance.

Check all bolts and pins after using the cutter for several hours and on a regular basis thereafter to ensure they are tight and secured. Replace worn, damaged, or illegible safety labels by obtaining new labels from your Land Pride dealer.

Perform maintenance only on a cutter that is not running. Disengage PTO, place tractor in park or set park brake, shut tractor engine off, remove switch key, and wait for blades to come to a complete stop before dismounting tractor to perform maintenance.

To avoid serious injury or death:

- Frequently check all hardware to make certain it is tight and not broken or missing. Such hardware can cause the cutter to not perform properly and may lead to breakage that can cause bodily injury or death.
- Do not operate cutter with loose pins, bolts, or nuts. Loose hardware can result in a serious breakdown causing bodily injury or death.



To avoid serious injury:

- Do not alter Land Pride equipment or replace parts with other brands. Doing so can cause equipment to perform improperly and may lead to breakage that can cause bodily injury. Replace parts only with genuine Land Pride parts.
- Maintain proper gearbox oil level. Improper oil level can cause bearing failure and be a fire hazard.

Tractor Maintenance

One of the most important things you can do to prevent hydraulic system problems is ensure that your tractor's reservoir remains free of dirt and contamination.

Use a clean cloth to wipe hose ends before attaching them to your tractor. Replace your tractor's hydraulic filter element at the prescribed intervals. These simple maintenances will go a long way to prevent occurrence of control valve and hydraulic cylinder problems.

Skid Shoes & Side Skirt

Excessive wear on skid shoes may cause inadequate operation of cutter and create a safety hazard.

Two skid shoes are mounted on the center section and one skid shoe mounted on the wing section. Check all skid shoes for wear and replace if necessary. Order only genuine Land Pride parts from your local Land Pride dealer.

Center Skid Shoes

Refer to Figure 5-1 on page 41:

- 1. Remove 5/8" hex whiz nuts (#4), 5/8" hex bolts (#3) and skid shoes (#1) from center deck (#2).
- Attach new skid shoes (#1) to cutter with existing 5/8" hex bolts (#3) and secure with 5/8" hex whiz nuts (#4). Tighten whiz nuts to the correct torque.

Wing Skid Shoe

Refer to Figure 5-2 on page 41:

- 1. Remove 3/8" whiz nuts (#5A), carriage bolts (#4), and hardened skid shoe (#2) from the wing deck.
- 2. Remove 3/8" whiz nuts (#5), plow bolts (#3), and wing skid shoe (#1) from the wing deck.
- 3. Discard worn skid shoe.
- 4. Inspect plow bolts for wear and replaced if needed.
- 5. Attach new hardened skid shoe (#2) to cutter side panel with removed 3/8"-16 x 1 1/4" GR5 carriage bolts (#4) and whiz nuts (#5A). Do not torque nuts tight at this time.
- Attach new skid shoe (#1) to cutter side panel with new/existing 3/8" -16 x 1 1/4" GR5 plow bolts (#3) and hex whiz nuts (#5).
- 7. Tighten whiz nuts (#5 & #5A) to the correct torque.

Side Skirt With Skid Shoes Attached

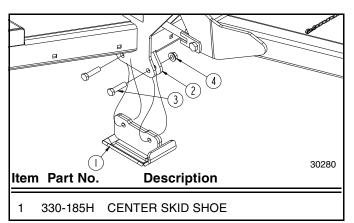
Refer to Figure 5-3 on page 41:

NOTE: Side Skirt assembly part number includes side skirt, skid shoes, decals & mounting hardware.

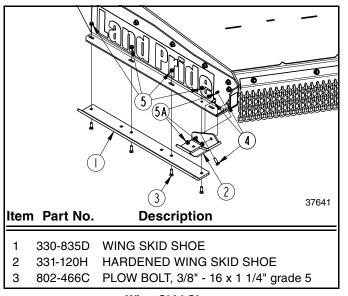
- 1. Remove existing hex whiz nuts (#3), carriage bolts (#2), and side skirt (#1).
- Attach new side skirt to cutter with 1/2" -13 x 1 1/4" GR5 carriage bolts (#2). Secure with new 1/2" hex whiz nuts (#3). Tighten nuts to the correct torque.

Section 5: Maintenance & Lubrication

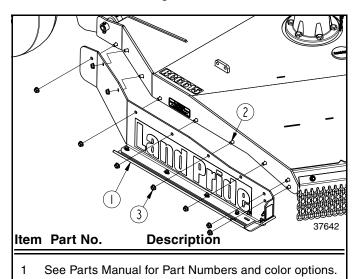


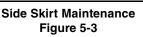


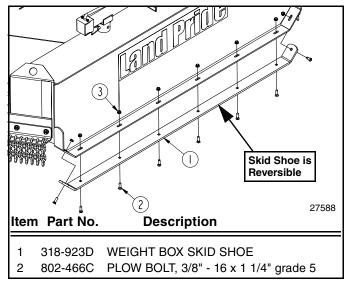
Center Skid Shoe Figure 5-1



Wing Skid Shoe Figure 5-2







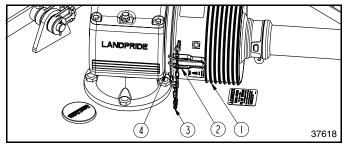
Weight Box Skid Shoe Figure 5-4

Weight Box Skid Shoe

Refer to Figure 5-4:

Reverse or replace weight box skid shoe as follows:

- 1. Remove 3/8" hex whiz nuts (#3), 3/8"-16 GR5 plow bolts (#2), and weight box skid shoe (#1) as shown.
- 2. Plow bolts (#2) should be checked for wear and replaced if necessary.
- 3. Reverse existing skid shoe and reattach or attach new skid shoe (#1) to cutter with 3/8" plow bolts (#2) and secure with 3/8" hex whiz nuts. Tighten whiz nuts to the correct torque.



Gearbox Shaft Guard Figure 5-5

Gearbox Shaft Guard

Refer to Figure 5-5:

- To remove shaft guard (#1) at the spindle gearbox and splitter gearbox, unsnap latches (#2) on both sides of guard (#1) and slide guard over driveline to expose driveline yoke and yoke grease zerk. Do not unhook safety chain (#3).
- 2. When servicing of driveline yoke is completed, return shaft guard to its original position and secure with latches (#2).
- 3. Check safety chain (#3). Make sure it is latched to shaft guard mounting plate (#4) and shaft guard (#1).



Cutter Blade Maintenance



Always disconnect main driveline from tractor PTO before servicing underside of cutter. PTO can be engaged if tractor is started causing cutter damage, bodily injury or death.

Always secure cutter deck in the up position with solid supports before servicing underside of cutter. Never work under equipment supported by hydraulics. Hydraulics can drop equipment if controls are actuated or if hydraulic lines burst. Either situation can drop the cutter instantly even when power to the hydraulics is shut off.

Do not operate cutter with blades that are bent, out-ofbalance, excessively worn, excessively nicked, or with blade bolts that are excessively worn. Such blades can break loose from the cutter at high speeds causing serious injury or death.

WARNING

Wait for blades to come to a complete stop before accessing blade bolts through blade bolt access hole.

Do not attempt to straighten a bent blade or weld on a blade. Do not attempt to modify a blade such as hard surfacing, heat treating, cold treating, or by any other method. Always replace blades with a new Land Pride blade to assure safety.

ALWAYS wear gloves and eye protection while inspecting, removing, sharpening, and replacing cutter blades.

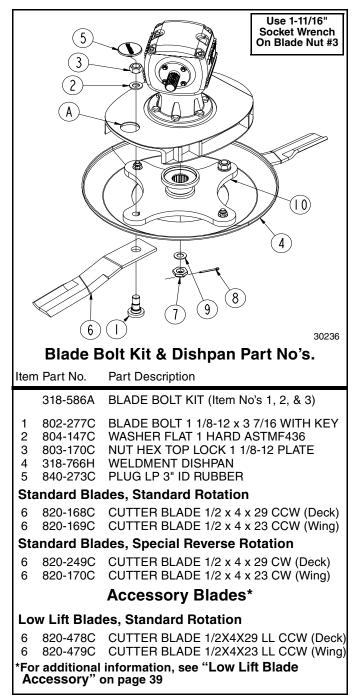
IMPORTANT: Replace cutting blades with genuine Land Pride blades only. Blades must be replaced in mating pairs. Not replacing both blades will result in an out-of-balance condition that will contribute to premature bearing breakdown on the spindle hub and create structural cracks in the cutter housing.

Always inspect cutting blades before each use. Make certain they are properly installed and in good working condition. Replace any blade that is damaged, worn, bent, or excessively nicked. Never try to straighten a bent blade! Small nicks can be ground out when sharpening. Refer to Figure 5-6 on page 42 when ordering Land Pride replacement blade components.

Remove cutting blades and sharpen or replace as follows:

1. Place tractor gear selector in park or set brake, shut engine off and remove ignition key.

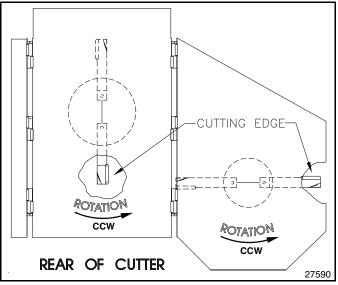
2. Disconnect main driveline from tractor PTO and secure cutter deck in the up position with solid supports before servicing underside of cutter.



Cutter Blade Assembly (Standard Blade Rotation Shown) Figure 5-6

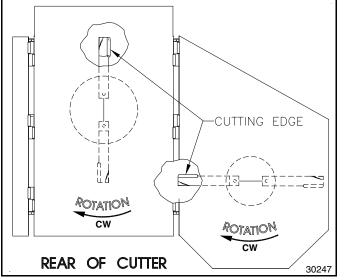
Refer to Figure 5-6:

- Remove rubber plug (#5) above cutter blade (#6). Rotate blade bolt (#1) until in alignment with access hole (A).
- 4. Unscrew lock nut (#3) to remove cutting blade (#6). Blade bolt (#1) is keyed and will not turn freely.



Standard Blade Rotation Figure 5-7

- 5. Both blades should be sharpened at the same angle as the original cutting edge and must be replaced or re-ground at the same time to maintain proper balance in the cutting unit. The following precautions should be taken when sharpening blades:
 - a. Do not remove more material than necessary.
 - b. Do not heat and pound out a cutting edge.
 - c. Do not grind blades to a razor edge. Leave a blunt cutting edge approximately 1/16" thick.
 - d. Always grind cutting edge so end of blade remains square to cutting edge and not rounded.
 - e. Do not sharpen back side of blade.
 - f. Both blades should weigh the same with not more than 1 1/2 oz. difference. Unbalanced blades will cause excessive vibration which can damage gearbox bearings and create structural cracks.



Special Reverse Blade Rotation Figure 5-8

Refer to Figure 5-7 & Figure 5-8:

6. Carefully check cutting edges of blades in relation to blade carrier rotation to ensure correct blade placement. Cutter blades must be installed with cutting edge leading in rotation.

Refer to Figure 5-6 on page 42:

IMPORTANT: Examine blade bolts and their flat washers for excessive wear and replace if worn.

IMPORTANT: Locknuts can lose their ability to lock properly once removed. Always use a new locknut when installing blades.

- Insert blade bolt (#1) through blade (#6), dishpan (#4), and flat washer (#2). Secure blade with a new lock nut (#3) and torque to 450 ft-lbs.
- 8. If replacing RC56 Series dishpan (#4) or RC66 Series blade bar (#10), nut (#7) on gearbox output shaft should be torqued to 550 ft-lbs. minimum and secured with cotter pin (#8) with both legs bent opposite directions around the nut.
- 9. Replace rubber plug (#5).
- 10. Reconnect main driveline to tractor PTO shaft and remove support blocks.





Drivelines With Slip Clutches



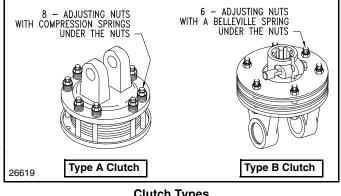
Always disengage PTO, place tractor in park or set park brake, shut tractor engine off, remove switch key, and wait for blades to come to a complete stop before dismounting from tractor to work on or around revolving components.



Slip clutches that have been in use or have been slipped for only two or three seconds during run-in may be too hot to touch. Allow a hot clutch to cool before working on it.

IMPORTANT: Prior to initial operation and after long periods of inactivity, slip friction disks to remove oxidation and moisture. Moisture allows disks to slip easily. Oxidation can prevent disk from slipping causing driveline damage. This damage is NOT covered under the warranty!

Friction clutches must be capable of slippage during operation to protect gearboxes, drivelines, and other drive train parts. Friction clutches should be "run-in" prior to initial operation and after periods of inactivity to remove any oxidation from the friction surfaces. Repeat "run-in" at the beginning of each season and when moisture seizes the inner friction plates.



Clutch Types Figure 5-9

Refer to Figure 5-9:

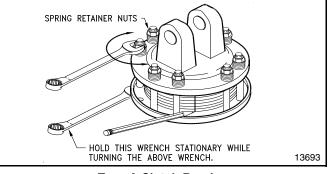
Determine which friction clutch your cutter has. Follow "run-in" instructions for your specific clutch type. Refer to this page for "**Type A Clutches**" and page 46 for "**Type B Clutches**".

Type A Clutches

Clutch Run-In

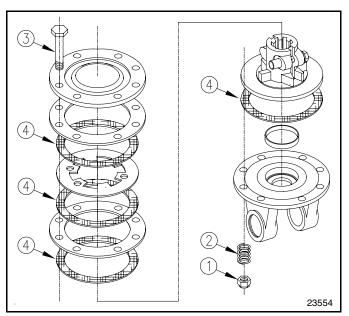
Refer to Figure 5-10:

- 1. Using a pencil or other marker, scribe a line across the exposed edges of the clutch plates and friction disks.
- 2. Carefully loosen each of the 8 spring retainer nuts by exactly 2 revolutions. It will be necessary to hold hex end of retainer bolt in order to **count the exact number of revolutions**.
- 3. Make sure the area is clear of all bystanders and machine is safe to operate.



Type A Clutch Run-In Figure 5-10

- 4. Start tractor and engage PTO drive for 2-3 seconds to permit slippage of the clutch surfaces. Disengage PTO, then re-engage a second time for 2-3 seconds. Disengage PTO, shut off tractor, and remove key. Wait for all components to stop before dismounting from tractor.
- 5. Inspect clutch and ensure that the scribed markings made on the clutch plates have changed position. Slippage has not occurred if any two marks on the friction disk and plate are still aligned. A clutch that has not slipped must be disassembled to separate the friction disk plates. See "Clutch Disassembly, Inspection & Assembly" on page 45 below.
- 6. Tighten each of the 8 spring retainer nuts on the clutch housing exactly 2 revolutions to restore clutch to original setting pressure.
- 7. Allow clutch to cool to ambient temperature before operating again. Clutch is now ready for use.
- The clutch should be checked during the first hour of cutting and periodically each week. An additional set of scribe marks can be added to check for slippage. See Figure 5-12 on page 45 to adjust spring length.



24600

Driveline No.	Driveline Location		Cat No.	A (inches) Spring Height
826-818C	Center	540/1000	5	1.32"
826-812C	Wing	540/1000	5	1.32"

Type A Clutch Adjustment Figure 5-12

Type A Clutch Assembly Figure 5-11

Clutch Disassembly, Inspection & Assembly

Refer to Figure 5-11:

If clutch run-in procedure above indicated that one or more friction disks did not slip, then the clutch must be disassembled to separate the friction disks.

Disassembly

IMPORTANT: Not all clutches are assembled the same with the same number of components. Be sure to keep track of order and orientation of your clutch components during disassembly.

Disassembly of clutch is simply a matter of first removing spring retainer nuts (#1), springs (#2), and bolts (#3) from the assembly. Each friction disk (#4) must then be separated from the metal surface adjacent to it.

Inspection

Inspect all parts for excessive wear and condition. Clean all parts that do not require replacement. The original friction disk thickness is 1/8" (3.2mm) and should be replaced if thickness falls below 3/64" (1.1mm). If clutches have been slipped to the point of "smoking", the friction disks may be damaged and should be replaced. Heat build-up may also affect the yoke joints.

Assembly

Reassemble each friction disk (#4) next to the metal plate it was separated from. Install bolts (#3) through end plates and intermediate plates as shown. Place springs (#2) over the bolts and secure with nuts (#1).

Refer to Figure 5-12:

Progressively tighten each spring retainer bolt until correct spring height "A" is reached.



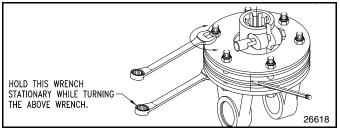
Land Pride

Type B Clutches

Clutch Run-In

Refer to Figure 5-13:

- 1. Using a pencil or other marker, scribe a line across the exposed edges of the clutch plates and friction disks.
- Carefully loosen each of the 6 nuts by exactly 1 revolution. It will be necessary to hold hex end of retainer bolt in order to count the exact number of revolutions.
- 3. Make sure the area is clear of all bystanders and machine is safe to operate.



Type B Clutch Run-In Figure 5-13

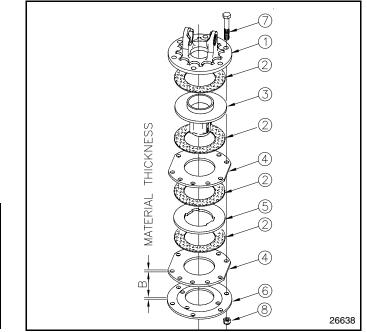
- Start tractor and engage PTO drive at idle for 2-3 seconds to permit slippage of friction plates. Disengage PTO, shut off tractor, and remove key. Wait for all components to come to a complete stop before dismounting from tractor.
- Inspect clutch to ensure that the scribed markings made on the clutch plates and friction disc have changed positions. If any two marks are still aligned, then the clutch did not slip as it should. Skip to step 8 if all clutch plates slipped.
- If the friction clutch did not slip, loosen the nuts one more revolution. Make sure the nuts have full thread engagement on the bolt and then repeat steps 4 - 5.
- A clutch that does not slip must be disassembled to separate the friction disk plates. See "Clutch Disassembly, Inspection & Assembly" below.
- 8. Tighten each of the nuts on the clutch back to their original location to restore clutch pressure.
- 9. Allow clutch to cool to ambient temperature before operating again. Clutch is now ready for use.
- 10. The clutch should be checked during the first hour of cutting and periodically each week. An additional set of scribe marks can be added to check for slippage.

Clutch Disassembly, Inspection & Assembly

The clutch must be disassembled into its separate friction disks if clutch run-in procedure indicated that one or more friction disks did not slip. See disassembly instructions.

Disassembly

IMPORTANT: Do not remove nuts (#8) from bolts (#7) until after Belleville spring (#6) is relaxed and not pressing against any of the six nuts (#8).



Type B 4 Plate Clutch Assembly Figure 5-14

Refer to Figure 5-14:

- Unscrew nuts (#8) equal amounts until all belleville spring tension is removed. Do not remove nuts until tension against all nuts has been removed.
- 2. Remove nuts (#8) and bolts (#7).
- 3. Separate all friction disks (#2) from plates (#4 & #5), hub (#3) and yoke flange (#1).

Inspection

Inspect all parts for excessive wear and condition. Clean all parts that do not require replacement. The original friction disk thickness is 1/8" (3.2mm) and should be replaced if thickness falls below 3/64" (1.1mm). If clutches have been slipped to the point of "smoking", the friction disks may be damaged and should be replaced. Heat build-up may also affect the yoke joints.

Assembly

- 1. Reassemble each friction disk (#2) next to the metal plate it was separated from.
- 2. Install bolts (#7) through end plates and intermediate plates as shown and secure with nuts (#8).

IMPORTANT: Measurement "B" is an approximate distance. Variations in spring force and friction materials may cause some differences in torque values. Tightening nuts (#8) one revolution will compress 4-plate clutch 1.75mm (.069").

 Tighten belleville spring (#6) until spring is tight against drive plate (#4) & then back nuts (#8) up 3 and 1/6 revolutions, "B" = 5.5 mm (0.217"). If a higher torque is needed, then tighten nuts another 1/6 of a revolution, Do not set gap "B" smaller than 5 mm (0.197").



Tire Maintenance



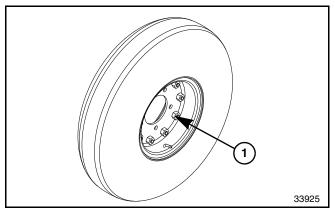
Tire changing can be dangerous and should be performed by trained personnel using correct tools and equipment. When removing and installing wheels, use wheel handling equipment adequate for the weight involved.

Always release all air pressure in air-filled airplane tires before removing hardware bolting their split rims together. Not doing so can cause the split rims to blow apart instantly and could result in serious injury or death.

A WARNING

When inflating tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side and NOT in front of or over the tire assembly. Use a safety cage if available. Do not overinflate tires.

Do not weld on or heat a rim. If a tire is mounted to the rim, air pressure inside the tire can increase enough to cause an explosion. High heat can also weaken and/or warp the rim, damage the tire, and destroy foam filling inside a tire.



Air Filled Airplane Tires with split Rims Figure 5-15

- 1. Check tires for low air pressure, missing nuts, missing lug bolts, wear, separated rubber, and bent, broken, or cracked wheel rims.
- 2. Inflate air filled tires to the proper pressure. Refer to "Tire Inflation Chart" on page 62.

Refer to Figure 5-15:

3. Replace wheel rims and tires as needed with genuine Land Pride parts. Do not loosen split rim hardware (#1) until all air pressure in the tire has been removed.



Long Term Storage

Clean, inspect, service, and make necessary repairs to the cutter when parking it for long periods and when parking it at the end of a working season. This will help ensure the cutter is ready for field use the next time you hook-up to it.

Always disconnect main driveline from tractor PTO before servicing underside of cutter. PTO can be engaged if tractor is started causing cutter damage, bodily injury or death.



Always secure cutter deck in the up position with solid supports before servicing underside of cutter. Never work under equipment supported by hydraulics. Hydraulics can drop equipment if controls are actuated or if hydraulic lines burst. Either situation can drop the cutter instantly even when power to the hydraulics is shut off.

- 1. Clean off any dirt and grease that may have accumulated on the cutter and moving parts. Scrape off compacted dirt from the bottom of deck and then wash surface thoroughly with a garden hose. A coating of oil may also be applied to the lower deck area to minimize oxidation.
- Check blades and blade bolts for wear and replace if necessary. See "Cutter Blade Maintenance" on page 42.
- 3. Inspect for loose, damaged, or worn parts, and adjust or replace as needed.
- Repaint parts where paint is worn or scratched to prevent rust. Ask your Land Pride dealer for aerosol touch-up paint. Paint is also available in touch-up bottles with brush, quarts, and gallon sizes by adding TU, QT, or GL to the end of the aerosol part number.

Land Pride Aerosol	Touch-up Paint
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Part No.	Part Description
821-011C	PAINT LP BEIGE AEROSOL SPRAY CAN
821-002C	PAINT LP BLACK AEROSOL SPRAY CAN
821-054C	PAINT MEDIUM RED AEROSOL SPRAY CAN
821-058C	PAINT GREEN AEROSOL SPRAY CAN
821-066C	PAINT ORANGE AEROSOL SPRAY CAN

- 5. Replace all damaged or missing guarding and decals.
- 6. Lubricate as noted in "Lubrication Points" starting on Page 49.
- 7. Store cutter on a level surface in a clean, dry place. Inside storage will reduce maintenance and make for a longer cutter life.
- 8. Follow all unhooking instructions on page 25 when disconnecting tractor from cutter.

Ordering Replacement Parts

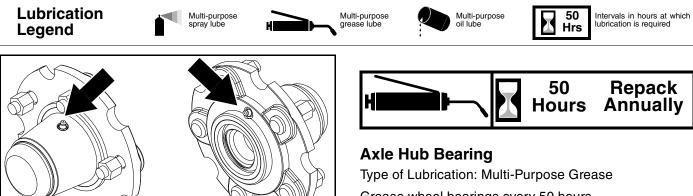
Land Pride offers equipment in factory standard beige color with black highlights. Equipment in special colors may be purchased in Green, Red, and Orange. Because of the variety of colors available, special attention must be given to the part number to prevent ordering the wrong replacement part. A suffix number corresponding to one of the colors below must be added at the end of Land Pride's part number when ordering a replacement part with that color. Parts ordered without a suffix number will be supplied in factory standard colors.

81	Green	82	.Orange
83	Red	86	. Yellow

For example, if you are ordering a replacement part with part number 555-555C and the existing part is red, then add the suffix 83 to the end of the number to make the part number read 555-555C83.

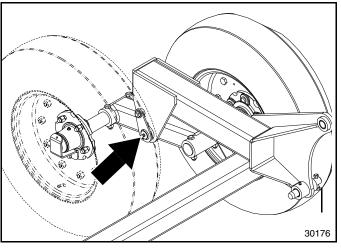


Lubrication Points



. 30184 Grease wheel bearings every 50 hours. 1-zerk per wheel (zerk can be on either side) Quantity = 2 pumps

Repack wheel bearings annually

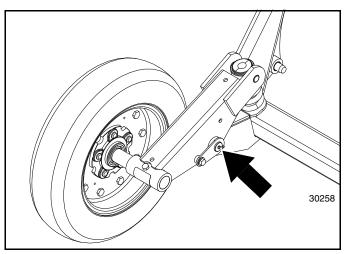


Tandem Axle Option



Trailing Arm Pivots

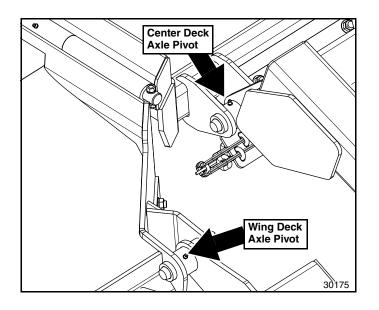
3 - zerks (1 per arm pivot)Type of Lubrication: Multi-Purpose GreaseQuantity = As required



Standard Axle Option

Section 5: Maintenance & Lubrication

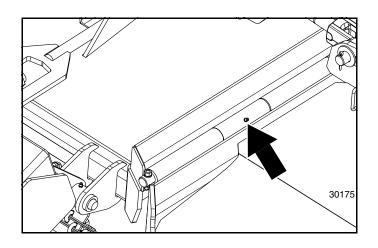






Axle Pivots

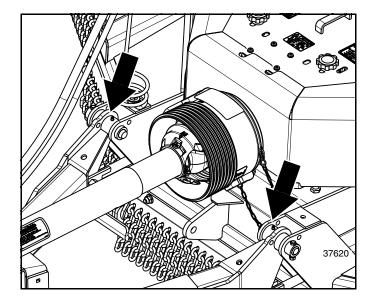
5 - zerks (2 zerks per wing axle & 3 zerks center axle)Type of Lubrication: Multi-Purpose GreaseQuantity = As required





Wing Hinge

5 - zerks (Along full length of wing hinge)Type of Lubrication: Multi-Purpose GreaseQuantity = As required

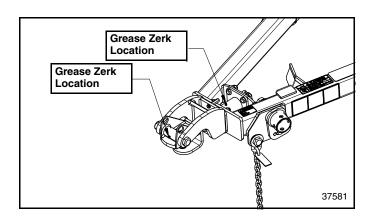


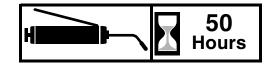


Hitch Frame

2- zerks Type of Lubrication: Multi-Purpose Grease Quantity = As required



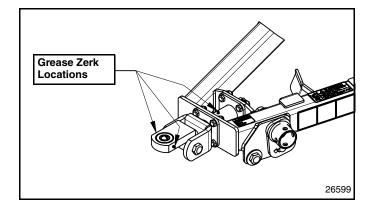




LP Performance Hitch (Optional)

2 - zerks Type of Lubrication: Multi-purpose Grease

Quantity = As required

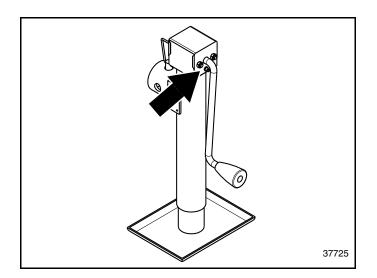


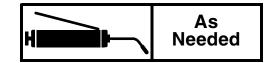


Bar-Tite Hitch (Optional)

3 - zerks

Type of Lubrication: Multi-purpose Grease





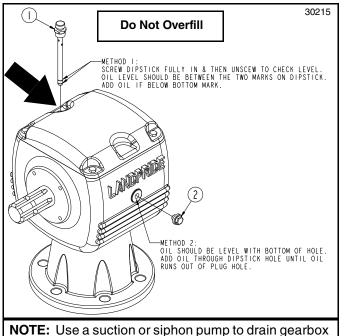
Park Jack

1 - zerk

Type of Lubrication: Multi-purpose Grease Quantity = As required Frequency = As needed and when unhooking for longterm storage.

Section 5: Maintenance & Lubrication





of oil when there is not an oil drain plug.



Gearbox

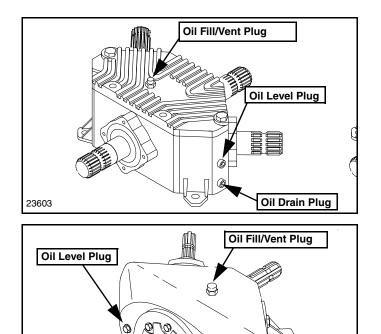
IMPORTANT: Do not overfill gearbox with oil! Oil will expand when hot! Make sure cutter is level and oil is cool before checking oil level.

Method 1: Unscrew top vented dipstick (#1). Wipe oil from dipstick and screw dipstick in without tightening. Unscrew dipstick and check oil on dipstick. If below bottom level mark, add recommended gear lube through dipstick hole until oil reaches top mark on dipstick. Reinstall vented dipstick and tighten.

Method 2: Remove side oil plug (#2). If oil is below bottom of plug hole, add recommended gear lube through top dipstick hole until oil flows out of side plug hole. Reinstall and tighten side oil plug (#2) and vented dipstick (#1).

Type of Lubrication: 80-90W EP Gear Lube

Quantity = Fill until oil reaches top mark on dipstick or begins to flow out side plug hole in gearbox.





Divider Box

24852

IMPORTANT: Do not overfill gearbox with oil! Oil will expand when hot! Make sure cutter is level and oil is cool before checking oil level.

If oil has been removed from the gearbox, refill gearbox to level plug, allow time for air to bleed up from the lower cavity, and then recheck.

Instructions: Remove oil level plug. If oil is below bottom of plug hole, add recommended gear lube through oil fill/vent plug hole until oil flow out of oil level plug hole. Reinstall and tighten oil level plug and oil fill/vent plug.

Type of Lubrication: 80-90W EP

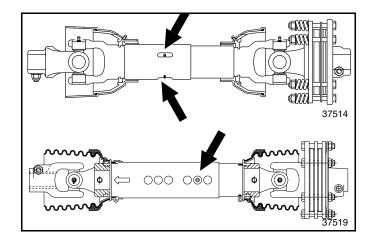
Quantity = Fill until oil begins to flow out oil level plug hole in gearbox.

NOTE: Use a suction or siphon pump to drain gearbox

of oil when there is not an oil drain plug.

Section 5: Maintenance & Lubrication

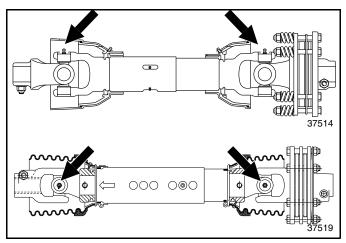






Wing Driveline Profile Tubes

Type of Lubrication: Multi-purpose Grease Quantity = Coat Generously

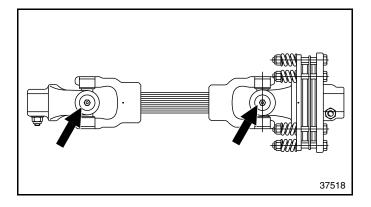


Drivelines with external profile tube grease point



Wing Driveline Joints

Type of Lubrication: Multi-purpose Grease

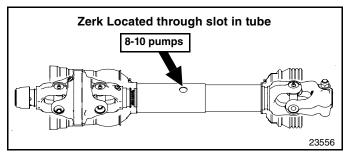




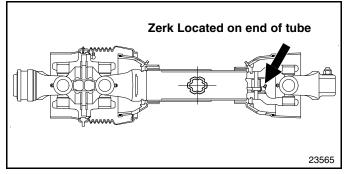
Center Deck Driveline Joints

Type of Lubrication: Multi-purpose Grease





CV Drivelines with external grease point for Profile Tube



CV Drivelines with internal grease point for Profile Tube



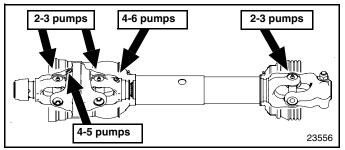
CV Main Driveline Profile Tubes

CV = Constant Velocity

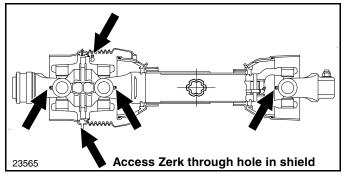
Type of Lubrication: Multi-purpose Grease

Quantity = Coat Generously

IMPORTANT: To extend the life of the constant velocity joint, the grease zerk for the profile tubes must be lubricated every 8 hours.



CV Drivelines with external grease point for Profile Tube Figure 5-16



CV Drivelines with internal grease point for Profile Tube Figure 5-17



CV Main Driveline Joints & Shields

CV = Constant Velocity

Type of Lubrication: Multi-purpose Grease

For instructions on how to access grease zerks shown in Figure 5-16, see "**Accessing CV Driveline Joints**" on page 55.

IMPORTANT: To extend the life of the constant velocity joint, extensive lubrication must be performed every 8 hours of operation.

- The constant velocity joint should be greased in a straight position forcing grease through the passages and into the cavity. After lubrication, grease should be visible around the ball joints.
- Grease fittings located on the u-joints and driveline shields should be lubricated every 8 hours of operation.

Section 5: Maintenance & Lubrication



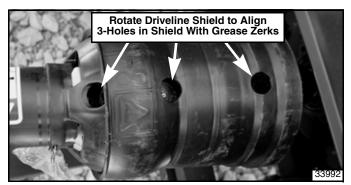
Accessing CV Driveline Joints

Refer to Figure 5-16 on page 54:

There are two ways the constant velocity driveline joints shown in Figure 5-16 can be accessed for lubrication. One is through holes in the driveline shield and the other is to slide the shields back to expose the grease zerks.

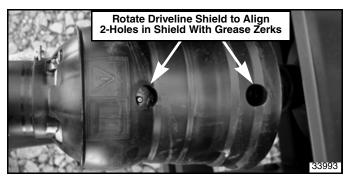
Lubrication Through Access Holes

- 1. **Refer to Figure 5-18:** Rotate driveline shield until holes in shield align with grease zerks in CV joint.
- Apply proper amount and type of lubrication. Refer to "CV Main Driveline Joints & Shields" on page 54 for quantities and type of lubrication.



Lubrication Through Three Holes In Driveline Shield Figure 5-18

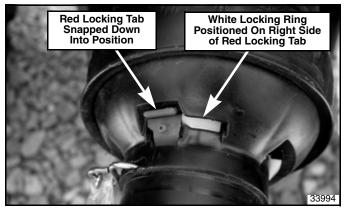
- 3. **Refer to Figure 5-19:** Rotate driveline shield 180^o until holes on opposite side of shield aligns with remaining grease zerks in CV joint.
- 4. Repeat step 2 above on any grease zerks that were not greased in step 2.
- 5. Steps 1 to 2 can be repeated to lubricate universal joint on opposite end of driveline. (Opposite end of driveline has only one grease zerk.)



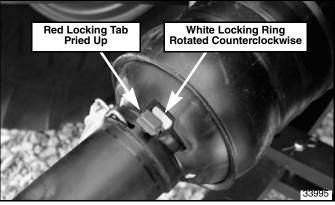
Lubrication Through Two Holes In Driveline Shield Figure 5-19

Lubrication By Sliding Driveline Shields Back

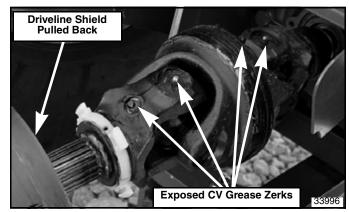
- 1. **Refer to Figure 5-20:** With a flat bladed screwdriver or similar tool, pry top of red locking tab up.
- 2. **Refer to Figure 5-21:** Rotate white locking ring fully counterclockwise to the position shown.
- 3. **Refer to Figure 5-22:** Pull back on driveline shielding until CV joint is exposed.



Locked Driveline Shield Figure 5-20



Unlocked Driveline Shield Figure 5-21



Slide Driveline Shield Back To Expose Grease Zerks Figure 5-22

- Apply proper amount and type of lubrication. Refer to "CV Main Driveline Joints & Shields" on page 54 for quantities and type of lubrication.
- 5. Slide driveline shield back to its operating position.
- 6. **Refer to Figure 5-20:** Rotate white locking ring clockwise and press locking tab down until it snaps in place as shown.
- 7. Steps 1 to 6 can be repeated to lubricate universal joint on opposite end of driveline.

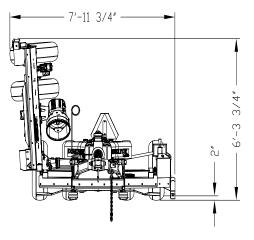
Section 6: Specifications & Capacities



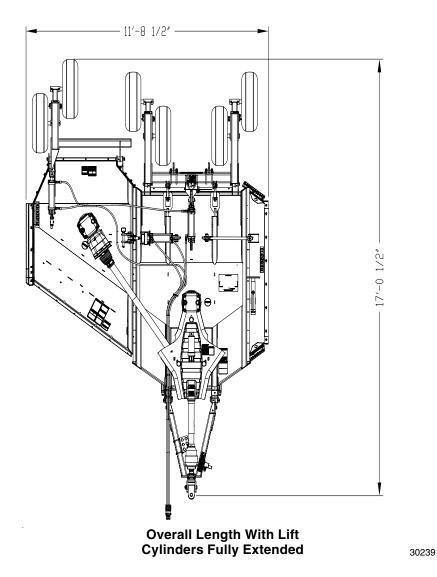
RCB6610 & RCBM6610 Series 2

List	Specifications & Capacities			
Horsepower Range	50 to 250			
Gearbox Horsepower	250 HP splitter			
	210 HP center & wing			
Gearbox Oil Capacity	5.5 Pints: divider gearbox			
	10 Pints: center deck & RH deck spindle gearboxes			
Gear Box Lubrication	Gear lube 80-90W EP			
Cutting Capacity	4 1/2"			
Machine Weight	Equipped with double row chain guards w/cable, 6 ACFF tires, tandem axle, deck rings,			
	swivel clevis hitch & winch			
Tongue Weight	1,842 lbs.			
Total Weight				
Blade Tip Speed At 540 RPM At 1000 RPM	Center blades = 16,300 FPMWing blades = 16,300 FPMCenter blades = 16,300 FPMWing blades = 16,000 FPM			
Hitch Types	Optional Self-Leveling Clevis Hitch, LP Performance Hitch,			
	Bar-Tite Hitch, Pintle Hitch, or Ball Hitch			
Hitch Jack	Standard (7,000 lbs.)			
Wing Offset	Right wing model with weight box on left side			
Cutting Width	10' - 6"			
Overall Width	11' - 6 3/4"			
Minimum Transport Width	7' - 5 1/4" (With tandem wheels & cutting height at 2")			
Overall Length	16' - 8 1/2" (With tandem wheels & lift cylinder fully extended)			
_	17' - 0 1/2" (With tandem wheels & cutting height at 2")			
Deck Height	12"			
Cutting Height	2" to 14"			
Lift Hydraulics Center Deck	3 1/2" x 8" Re-phasing hydraulic cylinder with hoses, fittings & stroke control spacers			
Right Wing	3 1/4" x 8" Re-phasing hydraulic cylinder with hoses & fittings			
Wing Hydraulics	3 1/2" x 8" Dual-acting hydraulic cylinder complete with hoses & fittings			
Wing Transport Protection	Transport Locks with hitch pins			
Deck Material	10 gauge top deck and 7 gauge bottom deck			
Side Skirt Material	Bolt-on replaceable 1/4" side			
Skid Shoes Wing Deck	Replaceable: 1 Standard straight skid shoe and 1 AR400 leading skid shoe			
Center Deck Weight Box	Replaceable: 2 Skid shoes Reversible & replaceable: 1 Skid shoe			
Four Blades (2 per Carrier)	1/2" x 4" Heat treated free swinging alloy steel with up lift			
Blade Overlap	6"			
Blade Bolt	Keyed with hardened flat washer & lock nut			
Stump Jumper / Blade Holder	3/16" Thick round dish shaped pan, reinforced with 1" thick blade mounting plate			
Deck Ring	Optional 1/2" x 3" fully welded			
Front & Rear Guards	Optional rubber, single chain, double chain, or double chain with cable			
Input Driveline 540 & 1000 rpm	ASAE Cat. 6 with constant velocity u-joint or Cat. 5 with conventional (non-cv) u-joint			
Intermediate & Wing Drivelines	Cat. 5 with slip-clutch			
Wheel Options	6" x 21" Laminated tires, 25.5" new foam filled tires,			
Standard Axle & Tandem Axle	29" x 16 ply used aircraft tires with or without foam filling.			
Number of Wheels				
Standard Axle	5- Wheel option: 4 on transport axle and one on wing axle			
	6- Wheel option: 4 on transport axle and two on wing axle			
Tandem Axle	5- Wheel option: 4 on transport axle and one non tandem on wing axle			
	6 - Wheel option: 4 on transport axle and two on wing axle			
Standard Transport Axle	Spring-cushioned on trailing arms			
Hubs	Cast iron five-bolt hubs with tapered roller bearings and 1 3/4" shafts			
Colors	Standard: Beige; Optional: Red, Green, Orange, or Yellow			





Overall Width With Cylinders Fully Retracted



Dimensions shown are with center hydraulic cylinder fully extended and 24 x 7.75 aircraft tires



RCB6615 & RCBM6615 Series 2

Features	Benefits		
Surpassed rugged industry	All Land Pride Cutters have been designed and tested to meet rigorous voluntary testing		
standards	procedures according to ISO 4254-13.		
Factory assembled	Saves customer set-up time and money. Adjustments should always be made by dealer.		
7 Year gearbox warranty	Shows confidence in gearbox integrity. (Years 6 & 7, parts only.)		
Rugged heavy built gearboxes	Gearboxes are capable of handling heavy cutting applications.		
Gearbox Seal Protection	Gearbox bottom seal protection for longer bearing life.		
2 3/8" Output gearbox shaft	Large output shaft handles shock loads better.		
2 Piece shield on wing gearboxes	Driveline grease zerks are easier to access.		
Self-leveling hitches	Reduces drawbar wear by keeping hitch level while going through ditches.		
Narrow A-frame hitch	Allows for a tighter turning radius.		
Adjustable park jack angle	Park jack can be adjusted to be perpendicular to the ground.		
Adjustable driveline hanger	Serves as a support rest for the driveline when the cutter is unhooked from the tractor. Assist operator when attaching driveline to tractor PTO shaft.		
Input driveline:	Holds up to shock loads and harsh mowing conditions. Constant velocity (CV) U-joint		
Cat. 6 CV or Cat. 5 Conventional	allows for 80 degree turns without doing damage to the driveline.		
Grease zerks on end caps of	Intermediate and wing driveline cross journals are easier to grease.		
driveline cross journals	All drivelines have access holes for greasing the U-joints and inner profiles.		
4 Plate slip-clutch	Protects drivelines and gearboxes by slipping clutches rather than twisting the driveline when impacts are encountered.		
High blade tip speed	Allows clean cutting of material and even distribution. See Specifications for actual FPM.		
6" Blade overlap	Eliminates skipping during turns.		
High cutting capacity	Can cut brushy areas with saplings up to 4 1/2".		
Pre-cut chamber	Allows grass and vegetation to stand back up prior to cutting for a more complete cut.		
Reinforced leading edge	Front of deck can withstand heavy brush and saplings.		
12" Deck height	Handles heavy cutting, which reduces balling-up of cut material under the deck.		
10 gauge smooth deck top	Reduces accumulation of debris and is easier and faster to clean.		
7 Gauge smooth deck bottom	Heavy deck design holds up to harsh conditions. No bottom obstructions.		
Replaceable 1/4" side skirt	Reduces debris piercing possibilities. Can be replaced if damaged.		
3/16" Round stump jumper backed	Heavy round stump jumper for protecting the gearbox seal and gearbox output shaft.		
with a 1" thick mounting plate	Can hold up to tough conditions.		
Spindle Nut Protected	Spindle nut and threads extending beyond the nut are guarded to protect against damage from hitting solid objects.		
Beveled skid shoes on wings	Reduces gouging the ground when turning.		
Hinged wing sections	Allows cutter to follow terrain. Ideal for rough ground where hillsides, ditches, and hollows can cause uneven cutting.		
Greasable wing folding hinge	Provides for a long hinge life and allows the wing to fold up and down with less stress.		
1" Solid hinge rods	Gives greater strength to the cutter from front to rear, and in the hinge area itself.		
Wing transport lock	Holds transport wing in the folded-up position in case of hydraulic pressure loss.		
Collapsible 1" Leveling rods	Prevents damage and failure to leveling rods. Large diameter leveling rods provide superior supporting strength over rough terrain.		
Enclosed dual leveling rods	Dual leveling rods enable the cutter to pull equally on the rear axle during travel over rough terrain. Many competitors only use one leveling rod.		
5-Bolt hubs	5-Bolt hubs makes the wheel assembly more durable and longer lasting.		
Drain holes in wheel rims	Allows water to drain from wheels mounted on folded-up wing. Helps prevent paint deterioration and rusting to the wheel rims.		
Spring-cushioned trailing arms	Provides independent suspension, cushions loads on drawbar.		
Replaceable wheel spindles	Wheel spindles can be replaced when damaged without replacing the entire axle. Simply remove one bolt to replace damaged spindle.		
Slow moving vehicle sign (SMV)	Required for transporting on roadways and mowing along side roads.		
Rear axle pull rings	Aids in getting unit out of soft ground conditions.		



RCB6615 & RCBM6615 Series 2

Features	Benefits
Rephasing wing cylinder	Allows the cutter to be leveled using wing cylinder verse mechanical turnbuckles.
Dual-acting wing cylinder	Allows wing to be folded inward beyond 90° for a narrow 7'-5 1/4" transport width.
Wheel options	Laminated tires: Eliminates flats.
	Air-filled tires: Give better cushion while transporting.
	Foam-filled tires: Give better cushion while transporting and can't go flat.
LP Performance hitch option	Great for uneven terrain, reduces drawbar wear. Hitch pivots freely up and down and pivots about the tractor drawbar.
Bar-tite hitch option	Ideal for extreme conditions. Clamps tight to drawbar eliminating drawbar wear.
Roadway light kit option	Allows operator to transport on public roads safer when head lights are turned on and/or when flasher lights are turned on.
Walking tandem axle option	Allows for a smoother pull in undulating terrain.
Deck rings (optional)	1/2" x 3" full welded deck ring keeps blades from damaging the deck.
Mechanical Winch (optional)	Aids in folding the cutter in the event of hydraulic failure.
Reverse Gearbox Rotation on Center & Wing Deck (optional)	Throws debris away from the road when cutting along side a road.



Troubleshooting Chart

Problem	Cause	Solution
Oil seal leaking	Gearbox overfilled	Drain oil level with fill hole or to full mark on dipstick.
	Seals damaged	Replace seals.
	Grass or wire wrapped on shaft	Clean off wrapped material and check seal areas daily.
	in seal area	
Driveline yoke or cross failing	Clutch is froze	Slip clutches per instructions under "Drivelines With Slip Clutches" on page 44.
	Shock load	Avoid hitting solid objects.
	Needs lubrication	Lubricate every 8 hours.
Slip clutches slip even with a light	Scalping the ground	Raise cutting height.
load	Clutch is not properly adjusted	Adjust clutch per instructions under "Drivelines With Slip Clutches" on page 44.
	Clutch plates are worn out	Replace clutch plates.
	Foreign object caught between clutch plates	Remove foreign object.
Bent driveline shaft	Contacting frame	Reduce lift height in transport position.
(Note: Shaft should be repaired or	Contacting 3-point arms	Raise or remove 3-point arms.
replaced if bent)	Bottoming out	Lengthen drawbar
	Binding up	Not lubricating enough.
Driveline shaft telescoping tube failing	Shock load	Avoid hitting solid objects.
Driveline shaft telescoping tube	Needs lubrication	Lubrigate quary 8 bours of approxim
wearing		Lubricate every 8 hours of operation.
Blades Lock Up	Blades locked together (overlapped) when the wing was raised to transport position	Use pry bar or other tool to separate cutting blades before lowering the wing.
	Tractor has instant on PTO	Engage PTO at low RPMs and then slowly increase engine speed to full PTO speed. See "Engage Blades" on page 34.
	Tractor has Instant off PTO	Decrease engine speed slowly to an idle and then disengage PTO. See "Disengage Blades" on page 34.
Blades wearing excessively	Cutting on sandy ground	Raise cutting height.
	Contacting ground frequently	Raise cutting height.
Blades coming loose	Blades not tightened properly	Tighten blade hardware, refer to "Cutter Blade Maintenance" on page 42.
	Over speeding PTO	Operate cutter at proper PTO speed.
Blades breaking	Hitting solid objects	Avoid hitting solid objects.
Loose blade carrier	Blade carrier hardware not tight	Tighten shaft nut to specified torque.
	Running loose in the past	Replace gearbox bearings and / or shaft.
Blade carrier bent	Hitting solid objects	Avoid hitting solid objects. Replace blade carrier.
Excessive side skid wear	Soil abrasive	Adjust cutter height.
	Cutting too low	Raise cutting height.
Excessive vibration	Hitting solid objects	Inspect area before cutting. Do not hit solid objects.
	Driveline bent	Replace driveline or distribution shaft.
	Blade carrier bent	Replace blade carrier.
	Blade broken	Replace blades.
	Blade will not swing	Inspect and unlock blades.
	High torque start-up or hitting solid objects.	Disassemble and inspect driveline for incorrectly located needles or damaged bearing cap.
	Blades have unequal weight	Replace each pair of blades on affected carrier.
Wing cylinder movement too slow	Orifice is plugged	Remove elbow fitting and unplug orifice.



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Section 9: Torque & Tire Inflation Charts



Bolt Size	$\overline{\langle}$	Bolt	Head Ic	lont!!!												
Bolt Size	\langle	\neg	Bolt Head Identification								Bolt Head Identification					
			€	\mathbf{i}	$\langle \cdot \rangle$		Bolt Size	5.8		8.8		10.9				
(inches)	,		Grade 5		Grade 8		(Metric)	Class 5.8		Class 8.8		Class 10.9				
in-tpi ¹ N	N · m ²	ft-lb ³	N · m	ft-lb	N·m	ft-lb	mm x pitch ⁴	N · m	ft-lb	N·m	ft-lb	N · m	ft-lb			
1/4" - 20	7.4	5.6	11	8	16	12	M 5 X 0.8	4	3	6	5	9	7			
1/4" - 28	8.5	6	13	10	18	14	M 6 X 1	7	5	11	8	15	11			
5/16" - 18	15	11	24	17	33	25	M 8 X 1.25	17	12	26	19	36	27			
5/16" - 24	17	13	26	19	37	27	M 8 X 1	18	13	28	21	39	29			
3/8" - 16	27	20	42	31	59	44	M10 X 1.5	33	24	52	39	72	53			
3/8" - 24	31	22	47	35	67	49	M10 X 0.75	39	29	61	45	85	62			
7/16" - 14	43	32	67	49	95	70	M12 X 1.75	58	42	91	67	125	93			
7/16" - 20	49	36	75	55	105	78	M12 X 1.5	60	44	95	70	130	97			
1/2" - 13	66	49	105	76	145	105	M12 X 1	90	66	105	77	145	105			
1/2" - 20	75	55	115	85	165	120	M14 X 2	92	68	145	105	200	150			
9/16" - 12	95	70	150	110	210	155	M14 X 1.5	99	73	155	115	l215	160			
9/16" - 18	105	79	165	120	235	170	M16 X 2	145	105	225	165	315	230			
5/8" - 11	130	97	205	150	285	210	M16 X 1.5	155	115	240	180	335	245			
5/8" - 18	150	110	230	170	325	240	M18 X 2.5	195	145	310	230	405	300			
3/4" - 10	235	170	360	265	510	375	M18 X 1.5	220	165	350	260	485	355			
3/4" - 16	260	190	405	295	570	420	M20 X 2.5	280	205	440	325	610	450			
7/8" - 9	225	165	585	430	820	605	M20 X 1.5	310	230	650	480	900	665			
7/8" - 14	250	185	640	475	905	670	M24 X 3	480	355	760	560	1050	780			
1" - 8	340	250	875	645	1230	910	M24 X 2	525	390	830	610	1150	845			
1" - 12	370	275	955	705	1350	995	M30 X 3.5	960	705	1510	1120	2100	1550			
1-1/8" - 7	480	355	1080	795	1750	1290	M30 X 2	1060	785	1680	1240	2320	1710			
1-1/8" - 12	540	395	1210	890	1960	1440	M36 X 3.5	1730	1270	2650	1950	3660	2700			
1-1/4" - 7	680	500	1520	1120	2460	1820	M36 X 2	1880	1380	2960	2190	4100	3220			
1-1/4" - 12	750	555	1680	1240	2730	2010	¹ in-tpi = nominal thread diameter in inches-threads per inch									
1-3/8" - 6	890	655	1990	1470	3230	2380	² N·m = newton-meters									
1-3/8" - 12	1010	745	2270	1670	3680	2710	³ ft-lb= foot pou	unds								
1-1/2" - 6	1180	870	2640	1950	4290	3160	4 mm x pitch =		thread of	diameter	[,] in millir	neters x	thread			
1-1/2" - 12	1330	980	2970	2190	4820	3560	pitch									
Torque tolerance + 0%, -15% of torquing values. Unless otherwise specified use torque values listed above.																
Additional Torque Values																
Blade Bolt Lock Nut 450							ft-lbs									
Blade Carrier Hub Nut						550 ft-lbs minimum										
Wheel Lug Nuts	S					85 ft-lbs										

Tire Inflation Chart						
TireSize	Inflation PSI					
25.5" Aircraft tire 29" Aircraft tire	40 psi					



Warranty

Land Pride warrants to the original purchaser that this Land Pride product will be free from defects in material and workmanship beginning on the date of purchase by the end user according to the following schedule when used as intended and under normal service and conditions for personal use.

Overall Unit and Driveline: One year Parts and Labor

Gearbox: 5 Years Parts and Labor 6th & 7th Year Parts Only

Hydraulic Cylinders: One year Parts and Labor;

Hoses and seals are considered wear items.

Blades, tires and driveline friction discs: Considered wear items

This Warranty is limited to the repair or replacement of any defective part by Land Pride and the installation by the dealer of any such replacement part, and does not cover common wear items. Land Pride reserves the right to inspect any equipment or parts which are claimed to have been defective in material or workmanship.

This Warranty does not apply to any part or product which in Land Pride's judgment shall have been misused or damaged by accident or lack of normal maintenance or care, or which has been repaired or altered in a way which adversely affects its performance or reliability, or which has been used for a purpose for which the product is not designed. Misuse also specifically includes failure to properly maintain oil levels, grease points, and driveline shafts.

Claims under this Warranty should be made to the dealer which originally sold the product and all warranty adjustments must be made through an authorized Land Pride dealer. Land Pride reserves the right to make changes in materials or design of the product at any time without notice.

This Warranty shall not be interpreted to render Land Pride liable for damages of any kind, direct, consequential, or contingent to property. Furthermore, Land Pride shall not be liable for damages resulting from any cause beyond its reasonable control. This Warranty does not extend to loss of crops, any expense or loss for labor, supplies, rental machinery or for any other reason.

No other warranty of any kind whatsoever, express or implied, is made with respect to this sale; and all implied warranties of merchantability and fitness for a particular purpose which exceed the obligations set forth in this written warranty are hereby disclaimed and excluded from this sale.

This Warranty is not valid unless registered with Land Pride within 30 days from the date of purchase by the end user.

IMPORTANT: The Online Warranty Registration should be completed by the dealer at the time of purchase. This information is necessary to provide you with quality customer service.

Model Number _____

Serial Number _____



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